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Thesis

JOB ANALYSIS OF OFFICE SERVICES PERFORMED  
BY OFFICE WORKERS IN SMALL COMMUNITIES

Submitted by

Catherine Santamaria

(B. S. in Ed. Salem State Teachers College, 1932)

In partial fulfillment of requirements for the  
degree of Master of Education

1941

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## ACKNOWLEDGMENTS

The writer wishes to acknowledge the invaluable assistance and guidance of her adviser, Professor Paul L. Salsgiver, in working out the problem of this thesis. Without his aid and suggestions, it would have been a much more difficult task to carry on the research. Acknowledgment is also made of the fine cooperation received from the office workers and employers who were good enough to furnish the necessary data for this study by filling out the check lists and questionnaires sent to them. The writer also wishes to acknowledge the kind assistance of her friend, Madeline E. Wolfe, in typing the data.

It is hoped that the study will be of some value and help to commercial educators, teachers, guidance counselors, curriculum makers, pupils, and employers of office workers.

C.S.



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## TABLE OF CONTENTS

Chapter		Page
I	INTRODUCTION. . . . .	1
	Summary of Job Analysis Studies. . . . .	1
	Justification of This Problem. . . . .	4
II	NATURE OF THE PROBLEM . . . . .	6
	Analysis of the Problem. . . . .	6
	Definition of Terms. . . . .	7
	Limitations. . . . .	7
	Importance of the Problem. . . . .	8
III	SELECTION OF COMMUNITIES AND BUSINESSES .	10
	Communities. . . . .	10
	Businesses . . . . .	12
IV	METHOD OF PROCEDURE . . . . .	19
	Securing Cooperation of Interviewees .	19
	Forms for Gathering Data . . . . .	20
	Time Analysis Chart . . . . .	20
	Duty List to Employees. . . . .	28
	Duty List to Employers. . . . .	31
	Personality Trait Ranking Sheet . .	31
	Education Questionnaire . . . . .	33
	Distribution of Check Lists. . . . .	33
V	ANALYSIS OF RETURNS . . . . .	36
	Check List Returns . . . . .	36
	Sex Distribution . . . . .	37
	Distribution as to Types of Businesses	39
	Analysis of Duties by Employees. . . .	42
	Findings . . . . .	43
	Analysis of Duties by Employers. . . .	56
	Findings . . . . .	56
VI	SIGNIFICANT DUTIES	
	Decile Rank--Employees' Judgments. . .	68
	Decile Rank--Employers' Judgments. . .	77
	Conclusions. . . . .	81
VII	OFFICE DUTIES THAT SHOULD BE TAUGHT IN SCHOOL. . . . .	83
	Percentages of School-Job Judgments. .	83
	Selection of Activities to Be Taught in School . . . . .	91



# TABLE OF CONTENTS

Page	Chapter
1	I
1	INTRODUCTION . . . . .
1	Summary of Job Analysis Studies . . . . .
4	Justification of This Problem . . . . .
6	II
6	NATURE OF THE PROBLEM . . . . .
6	Analysis of the Problem . . . . .
7	Definition of Terms . . . . .
7	Limitations . . . . .
8	Importance of the Problem . . . . .
10	III
10	SELECTION OF COMMUNITIES AND BUSINESSES . . . . .
10	Communities . . . . .
12	Businesses . . . . .
19	IV
19	METHOD OF PROCEDURE . . . . .
19	Securing Cooperation of Interviewees . . . . .
20	Forms for Gathering Data . . . . .
20	Time Analysis Chart . . . . .
28	Duty List to Employees . . . . .
31	Duty List to Employers . . . . .
31	Personality Trait Ranking Sheet . . . . .
33	Education Questionnaire . . . . .
33	Distribution of Check Lists . . . . .
36	V
36	ANALYSIS OF RETURNS . . . . .
36	Check List Returns . . . . .
37	Sex Distribution . . . . .
39	Distribution as to Types of Businesses . . . . .
42	Analysis of Duties by Employees . . . . .
43	Findings . . . . .
52	Analysis of Duties by Employers . . . . .
52	Findings . . . . .
66	VI
66	SIGNIFICANT DUTIES . . . . .
77	Scale Rank--Employees' Judgments . . . . .
81	Scale Rank--Employers' Judgments . . . . .
81	Conclusions . . . . .
83	VII
83	OFFICE DUTIES THAT SHOULD BE TAUGHT IN . . . . .
83	SCHOOL . . . . .
83	Percentages of School-Job Judgments . . . . .
91	Selection of Activities to Be Taught . . . . .
91	in School . . . . .



Chapter		Page
VII	(Continued)	
	Mastery and Acquaintanceship Levels	135
	of Instruction. . . . .	92
	Combined Judgments of Employees and	147
	Employers . . . . .	94
	Conclusions and Recommendations . . . . .	94
VIII	DUTIES TO BE LEARNED ON THE JOB. . . . .	102
	Percentage of Job-School Judgments. . . . .	102
	Selection of Activities to Be Learned	
	on the Job. . . . .	103
	Conclusions . . . . .	113
IX	PERSONALITY TRAITS . . . . .	116
	Employees' Judgments. . . . .	116
	Conclusions . . . . .	122
	Employers' Judgments. . . . .	123
	Conclusions . . . . .	129
	Combined Judgments of Employees and	
	Employers . . . . .	130
	Conclusions . . . . .	132
	Consolidation of Traits with Activities	133
	Conclusions . . . . .	134
	Recommendations . . . . .	137
X	EDUCATION OF EMPLOYEES . . . . .	141
	General Education . . . . .	141
	Business Training . . . . .	143
	Placement Possibilities . . . . .	144
	Conclusions . . . . .	146
	Recommendations . . . . .	147
XI	MISCELLANEOUS DATA . . . . .	149
	Additional Duties . . . . .	149
	Conclusions . . . . .	168
	Problems Solved on the Calculator . . . . .	169
	Addition . . . . .	170
	Multiplication . . . . .	170
	Subtraction. . . . .	171
	Division . . . . .	171
	Conclusions . . . . .	172
XII	SUMMARY AND CONCLUSIONS. . . . .	174
	General Summary . . . . .	174
	Conclusions . . . . .	178
	Personnel of Study . . . . .	178
	Activities of Workers. . . . .	179
	Personality Traits . . . . .	181
	Education and Placement. . . . .	182
	A Suggested Commercial Curriculum. . . . .	183



## VII (Continued)

102 . . . . . of Instruction . . . . .  
 92 . . . . . Combined Judgments of Employees and  
 94 . . . . . Employers . . . . .  
 94 . . . . . Conclusions and Recommendations . . . . .

## VIII

101 . . . . . DUTIES TO BE LEARNED ON THE JOB . . . . .  
 102 . . . . . Percentage of Job-School Judgments . . . . .  
 103 . . . . . Selection of Activities to Be Learned  
 103 . . . . . on the Job . . . . .  
 113 . . . . . Conclusions . . . . .

## IX

## PERSONALITY TRAITS

115 . . . . . Employees' Judgments . . . . .  
 116 . . . . . Conclusions . . . . .  
 122 . . . . . Employees' Judgments . . . . .  
 123 . . . . . Conclusions . . . . .  
 129 . . . . . Combined Judgments of Employees and  
 130 . . . . . Employers . . . . .  
 132 . . . . . Conclusions . . . . .  
 133 . . . . . Consolidation of Traits with Activities  
 134 . . . . . Recommendations . . . . .  
 137 . . . . .

## X

## EMPLOYMENT OPPORTUNITIES

141 . . . . . General Education . . . . .  
 141 . . . . . Business Training . . . . .  
 143 . . . . . Placement Possibilities . . . . .  
 144 . . . . . Conclusions . . . . .  
 145 . . . . . Recommendations . . . . .  
 147 . . . . .

## XI

## MISCELLANEOUS DATA

148 . . . . . Additional Data . . . . .  
 149 . . . . . Conclusions . . . . .  
 150 . . . . . Problems Solved on the Calculator . . . . .  
 150 . . . . . Addition . . . . .  
 150 . . . . . Multiplication . . . . .  
 151 . . . . . Subtraction . . . . .  
 151 . . . . . Division . . . . .  
 152 . . . . . Conclusions . . . . .

## XII

## SUMMARY AND CONCLUSIONS

154 . . . . . General Summary . . . . .  
 154 . . . . . Conclusions . . . . .  
 155 . . . . . Personnel of Study . . . . .  
 155 . . . . . Activities of Workers . . . . .  
 156 . . . . . Personality Traits . . . . .  
 158 . . . . . Education and Placement . . . . .  
 158 . . . . .

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Chapter		Page
XIII	RECOMMENDATIONS FOR FURTHER STUDY . . . . .	186
	ANNOTATED BIBLIOGRAPHY. . . . .	187
	APPENDIX. . . . .	190

Table	Title	Page
I	Geographical Distribution of Employees . . . . .	12
II	Geographical Distribution of Employers . . . . .	12
III	Distribution of Employees as to Types of Businesses . . . . .	14
IV	Distribution of Employers as to Types of Businesses . . . . .	17
V	Distribution of Employees Solicited for Time Analysis Charts . . . . .	22
VI	Summary of Duties from Time Analysis Charts. . . . .	25
VII	Check List Mailing Data--Employees . . . . .	36
VIII	Check List Mailing Data--Employers . . . . .	37
IX	Sex Distribution of Employees. . . . .	38
X	Check List Returns from Employees According to General Classifications of Businesses . . . . .	39
XI	Check List Returns from Employers According to General Classifications of Businesses . . . . .	40
XII	Returns Containing Time Elements. . . . .	41
XIII	Frequency Ranking of Duties by Employees . . . . .	42
XIV	Frequency Ranking of Duties by Employers . . . . .	47
XV	Decile Rank of Significant Duties Based on Employees' Judgments . . . . .	70
XVI	Decile Rank of Significant Duties Based on Employers' Judgments . . . . .	75
XVII	Duties that Should be Taught in School Based on Employees' Judgments. . . . .	82



Page	Chapter
186 . . . . .	XIII RECOMMENDATIONS FOR FURTHER STUDY
187 . . . . .	ANNOTATED BIBLIOGRAPHY
190 . . . . .	APPENDIX

# LIST OF TABLES

Table	Title	Page
I	Geographical Distribution of Employees . . .	12
II	Geographical Distribution of Employers . . .	12
III	Distribution of Employees as to Types of Businesses . . . . .	14
IV	Distribution of Employers as to Types of Businesses . . . . .	17
V	Distribution of Employees Solicited for Time Analysis Charts . . . . .	22
VI	Summary of Duties from Time Analysis Charts.	23
VII	Check List Mailing Data--Employees . . . . .	36
VIII	Check List Mailing Data--Employers . . . . .	37
IX	Sex Distribution of Employees. . . . .	38
X	Check List Returns from Employees According to General Classifications of Businesses . .	39
XI	Check List Returns from Employers According to General Classifications of Businesses . .	40
XII	Returns Containing Time Element. . . . .	41
XIII	Frequency Ranking of Duties by Employees . .	44
XIV	Frequency Ranking of Duties by Employers . .	57
XV	Decile Rank of Significant Duties Based on Employees' Judgments . . . . .	70
XVI	Decile Rank of Significant Duties Based on Employers' Judgments . . . . .	78
XVII	Duties That Should be Taught in School Based on Employees' Judgments. . . . .	85



# LIST OF TABLES

Page	Title	Table
12	Geographical Distribution of Employees . . . . .	I
12	Geographical Distribution of Employers . . . . .	II
14	Distribution of Employees as to Types of Businesses . . . . .	III
17	Distribution of Employers as to Types of Businesses . . . . .	IV
22	Distribution of Employees Solicited for Time Analysis Charts . . . . .	V
23	Summary of Duties from Time Analysis Charts . . . . .	VI
3	Check List Mailing Data--Employees . . . . .	VII
37	Check List Mailing Data--Employers . . . . .	VIII
38	Sex Distribution of Employees . . . . .	IX
38	Check List Returns from Employees According to General Classifications of Businesses . . . . .	X
40	Check List Returns from Employers According to General Classifications of Businesses . . . . .	XI
41	Returns Containing Time Element . . . . .	XII
44	Precedency Ranking of Duties by Employees . . . . .	XIII
57	Precedency Ranking of Duties by Employers . . . . .	XIV
70	Bestie Rank of Significant Duties Based on Employees' Judgments . . . . .	XV
78	Bestie Rank of Significant Duties Based on Employers' Judgments . . . . .	XVI
82	Duties That Should be Taught in School Based on Employees' Judgments . . . . .	XVII

Table	Title	Page
XVIII	Duties That Should Be Taught in School-- Based on Employers' Judgments. . . . .	88
XIX	Duties to Be Learned in School--Combined Judgments of Employees and Employers . . . . .	95
XX	Duties That Can Be Learned on the Job Based on Employees' Judgments. . . . .	104
XXI	Duties That Can Be Learned on the Job Based on Employers' Judgments. . . . .	109
XXII	Ranking of Traits by Employees . . . . .	117
XXIII	Traits Listed in Order of Importance-- Employees' Judgments . . . . .	119
XXIV	Traits Presented According to Group Classi- fication--Employees' Judgments . . . . .	121
XXV	Ranking of Traits by Employers . . . . .	125
XXVI	Traits Listed in Order of Importance-- Employers' Judgments . . . . .	126
XXVII	Traits Presented According to Group Classi- fication--Employers' Judgments . . . . .	128
XXVIII	Relative Importance of Traits--Combined Judgments of Employees and Employers . . . . .	131
XXIX	Consolidation of Traits with Activities. . . . .	135
XXX	General Education of Employees . . . . .	142
XXXI	Business Training of Employees . . . . .	142
XXXII	Placement Possibilities of Graduates Outside Their Own Immediate Communities. . . . .	145
XXXIII	Additional Duties--Employees . . . . .	151
XXXIV	Additional Duties--Employers . . . . .	166



Page	Title	Table
88	Duties That Should Be Taught in School-- Based on Employers' Judgments . . . . .	XVIII
92	Duties to Be Learned in School--Combined Judgments of Employees and Employers . . . . .	XIX
104	Duties That Can Be Learned on the Job Based on Employers' Judgments . . . . .	XX
109	Duties That Can Be Learned on the Job Based on Employers' Judgments . . . . .	XXI
117	Ranking of Traits by Employees . . . . .	XXII
119	Traits Listed in Order of Importance-- Employees' Judgments . . . . .	XXIII
121	Traits Presented According to Group Classi- fication--Employees' Judgments . . . . .	XXIV
125	Ranking of Traits by Employers . . . . .	XXV
128	Traits Listed in Order of Importance-- Employers' Judgments . . . . .	XXVI
128	Traits Presented According to Group Classi- fication--Employers' Judgments . . . . .	XXVII
131	Relative Importance of Traits--Combined Judgments of Employees and Employers . . . . .	XXVIII
135	Consolidation of Traits with Activities . . . . .	XXIX
142	General Education of Employees . . . . .	XXX
142	Business Training of Employees . . . . .	XXXI
145	Placement Possibilities of Graduates Outside Their Own Immediate Communities . . . . .	XXXII
151	Additional Duties--Employees . . . . .	XXXIII
152	Additional Duties--Employers . . . . .	XXXIV

## CHAPTER I

### INTRODUCTION

#### Summary of Job Analysis Studies

The purpose of a job analysis is to find out directly from the workers what they actually do on the job. From this information instructors may receive suggestions for making the instruction of future workers as practical as possible. The studies may also serve as aids in guidance work and in curriculum construction. Job analyses may be made of any type of employee--from the laborer to the white collar man. Jobs for which high school commercial education courses prepare young people adapt themselves very nicely to job analysis studies. It is only through this medium that high school teachers of commercial subjects will know definitely what the job requires of their prospective office employees.

One of the first job analysis studies to be made that was of some assistance to commercial teachers in making their instruction more practical was an Analysis of Secretarial Duties and Traits by W. W. Charters and Isadore B. Whitley.<sup>1</sup> The study was conducted by Charters

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and Whitley and financed by the National Junior Personnel Service. The investigators attempted to find out what the secretaries actually did on the job and what traits were essential for success on the job. The study has a popular as well as a scientific import. It contains suggestions for employers and employees as well as for educators and counselors.

Another job analysis of the secretary's position was conducted later by Frederick G. Nichols and Sally W. Wissmann.<sup>2</sup> The study was financed by the American Institute for Secretaries. This study differed from the previous study by Charters and Whitley in that a more definite attempt was made to limit the study specifically to the secretary. The study shows the importance of the duties performed by secretaries and of the personal traits that a secretary must possess to succeed in her work. This analysis is of help to employees and employers as well as to commercial education instructors.

A New Conception of Office Practice by Nichols et al, in cooperation with the National Association of Office Managers, was intended to determine what duties

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2. Frederick G. Nichols and Sally W. Wissmann, The Personal Secretary: Differentiating Duties and Traits. Cambridge: Harvard University Press, 1934. 105 pp.

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were performed by non-stenographic and non-bookkeeping clerical workers and what part office machines should play in commercial education. It was to differentiate the duties so as to reveal those for which vocational training can and should be given in school.

A few job analysis studies of bookkeepers have been made. These are in the nature of Master's and Doctor's Theses. Elvin S. Eyster conducted An Analysis of the Duties of Bookkeepers.<sup>4</sup> He attempted to analyze the duties of bookkeepers and to discover the most frequently performed duties, where they should be taught, and the relative importance of bookkeepers' duties between occupational groups and within occupational groups. Another job analysis of bookkeepers was conducted by Reuben E. Nyquist.<sup>5</sup> In this study of the bookkeepers in Mason City, Iowa, consideration was given to the length of time devoted to each duty so that its importance might be more accurately judged. Benjamin E. Strumpf's Bookkeeping Duties and the Commercial Curriculum<sup>6</sup> attempted to find out what bookkeepers do and what should

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4. Elvin S. Eyster, "An Analysis of the Duties of Bookkeepers." Unpublished Master's Thesis. Bloomington, Indiana: University of Indiana, 1931. vi + 194 pp.

5. Reuben E. Nyquist, "A Job Analysis of Bookkeepers' Duties." Unpublished Master's Thesis. Iowa City, Iowa: University of Iowa, 1938. 61 pp.

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be the procedure and method of teaching in order to modify the existing course of study. Etta C. Skene in her Occupational Analysis As A Basis of Bookkeeping Curricula of Public Secondary Schools<sup>7</sup> analyzed bookkeeping activities involved in business occupations as a basis for determining the content of those courses of study in secondary schools which include bookkeeping activities. She attempted to determine which activities should be taught in school, which should be taught on the acquaintanceship level and which on the mastery level, and in which course in the high school the bookkeeping activities should be organized. Another job analysis relating to bookkeeping duties has been conducted by O. R. Wessels in his A Job Analysis of Bookkeeping Duties of Executives.<sup>8</sup> This was a study of the bookkeeping duties performed by executives in Iowa, eastern Nebraska, and western Illinois to determine any changes that needed to be made in the high school bookkeeping course of study.

#### Justification of This Problem

It is evident from the foregoing that there is an interest among educators to attempt to find out what our

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7. Etta C. Skene, "Occupational Analysis As A Basis of Bookkeeping Curricula of Public Secondary Schools." Unpublished Doctor's Thesis. New York, New York: New York University. 1934. 203 pp.

8. O. R. Wessels, "A Job Analysis of Bookkeeping Duties of Executives." Unpublished Master's Thesis. Iowa City, Iowa: University of Iowa. 1932. 150 pp.





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1. An analysis of the duties performed by office workers in communities of 10,000 population or less as a basis for determining how to improve or supplement the instruction already given in the commercial curriculum in the high schools of such communities.

- a. To find out from the employees which of the duties they perform are important or unimportant, which should be taught in school, on the job, or need instruction in school and on the job, and how much time in terms of minutes per day, hours per week, and weeks per year they spend on each duty.
- b. To find out from the employers what they expect their office workers to be able to do, whether these duties are important or unimportant, and whether they should be taught in school, learned on the job, or taught in school and on the job.



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## CHAPTER II

### NATURE OF THE PROBLEM

The problem of this study is to analyze the office services of office workers in communities of 10,000 population or less as a basis for determining the commercial curriculum content of high schools located in such communities. The problem resolves itself into major problems and sub-problems.

#### Analysis of the Problem

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- b. To find out from the employers what they expect their office workers to be able to do, whether these duties are important or unimportant, and whether they should be taught in school, learned on the job, or taught in school and on the job.

2. An analysis of the personality traits essential for the success of these workers on the job, as a basis for determining which traits the teacher should strive to develop in the pupils in an effort to meet the standards of prospective employers.

- a. The traits considered most important by the employees.
- b. The traits considered most important by the employers.

#### Importance of the Problem

3. Determine the educational training of these office workers in an attempt to find out what the possibilities are of placing high school graduates directly into office jobs.

#### Definition of Terms

The term "office services" includes all the duties that the individual performs in the office, from the very routine type to the more intellectual type that require intelligent reasoning. The term "office workers" includes those people who perform any type of office work, whether it be clerical, stenographic, bookkeeping, or a combination of some or all of these different types of office work. "Small communities" in this study includes towns having a population of 5,000 to 10,000.

#### Limitations

The following are limitations involved in this research study:

1. Limitation of time in not being able to see individually more of the employees and employers in order to obtain a greater percent of returns.



2. An analysis of the personality traits essential for the success of these workers on the job, as a basis for determining which traits the teacher should strive to develop in the pupils in an effort to meet the standards of prospective employers.

a. The traits considered most important by the employees.

b. The traits considered most important by the employers.

3. Determine the educational training of these office workers in an attempt to find out what the possibilities are of placing high school graduates directly into office jobs.

### Definition of Terms

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### Limitations

The following are limitations involved in this research study:

1. Limitation of time in not being able to see individually more of the employees and employers in order to obtain a greater percentage of returns.

2. In attempting to secure data on the time spent on each duty, only some employees gave the minutes per day, hours per week, and weeks per year spent on each duty they performed. There may be some question, therefore, as to the accuracy of the time element. It is of some value, however, to know approximately the average time spent on each duty by these office workers.

### Importance of the Problem

This research ought to contribute information concerning the varied duties that office workers in small communities perform on the job and what traits are essential for these workers to possess in order to succeed on the job.

It will enable instructors to see wherein their classroom instruction needs to be revised and adapted to meet existing business demands.

Guidance counselors also will find the study of value. The aptitudes, interests, and abilities of pupils to perform the varied activities of office workers should determine the eligibility of pupils to enter vocational training. Possession of the desirable personality traits further determines the pupils' fitness for office work.

The study offers helpful material to curriculum makers. From the data secured in this study, reconstruction of the commercial curriculum can be made in high schools of communities similar to those surveyed





in this research. Further than this, new courses of study can be built, and units of instruction can be worked out.

The study may be presented to prospective office workers, showing them what business expects of them in the way of duties to be performed and desirable personal qualities. Self-analysis studies may result, whereby the pupils may determine whether or not they are fitted for this sort of work.

This research is justifiable on the ground that it is important for instructors and pupils of the schools within the communities surveyed to know what the business man expects of his employees. The high schools should, then, attempt to meet his demands to the best of their ability by modifying their methods of instruction and the content of courses in the commercial curriculum.

This survey will also attempt to show what the placement opportunities are in the communities.





## CHAPTER III

### SELECTION OF COMMUNITIES AND BUSINESSES

#### Communities

The small communities surveyed in this study were Bellows Falls, Brattleboro, and Springfield, Vermont. The communities were selected, first, on the basis of population (5,000 to 10,000) so that they would be comparable in size to Bellows Falls, where the investigator resides, and would offer comparable opportunities for office workers; and, second, on the basis of commuting distance from Bellows Falls as possible places where the graduates of Bellows Falls High School might seek employment.

Although the majority of the residents of Bellows Falls manage to find employment within their own town, there are some who succeed in getting employment elsewhere. Since the other two towns included in this study are comparable in size to Bellows Falls and since they are within commuting distance, it was thought advisable to find out just what the employment possibilities are for Bellows Falls High School graduates in these communities. Also it was felt advisable to analyze the opportunities for the graduates of the other two high



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Although the majority of the residents of Bellows Falls manage to find employment within their own town, there are some who succeed in getting employment elsewhere. Since the other two towns included in this study are comparable in size to Bellows Falls and since they are within commuting distance, it was thought advisable to find out just what the employment possibilities are for Bellows Falls High School graduates in these communities. Also it was felt advisable to analyze the opportunities for the graduates of the other two high

schools concerned in the study in a town other than their own.

Bellows Falls itself has a few manufacturing plants, such as paper, box, and brush manufacturing, a power plant, creamery, retail stores, banks, a motor express company, and a number of offices--law, insurance, public service, and municipal. Brattleboro has a few manufacturing plants. Employment possibilities there are confined to a large extent to offices of lawyers, insurance, retail stores, banks, and privately owned plumbing, printing, and automobile sales and service concerns. The third town, Springfield, although the smallest of the three in population, is the booming industrial center at the present time. Three large machine manufacturing plants are located here, with a few smaller manufacturing establishments. The present defense program has put these factories on a day and night schedule, offering employment to many people within the town and from surrounding towns. There are not many employment opportunities in law, insurance, retail store offices, or offices of privately owned concerns.

The number and per cent of employees from each community who were solicited for data for this study are shown in Table I.





TABLE I. GEOGRAPHICAL DISTRIBUTION  
OF EMPLOYEES

Towns	Number	Per Cent
Bellows Falls. . . . .	118	42
Brattleboro. . . . .	104	37
Springfield. . . . .	59	21
Totals . . . . .	281	100

There were 118, or 42%, from Bellows Falls; 104, or 37%, from Brattleboro; and 59, or 21%, from Springfield, making a total of 281 employees.

The number and per cent of employers from each town who were solicited for data are shown in Table II.

TABLE II. GEOGRAPHICAL DISTRIBUTION  
OF EMPLOYERS

Towns	Number	Per Cent
Bellows Falls. . . . .	44	38
Brattleboro. . . . .	50	43
Springfield. . . . .	22	19
Totals . . . . .	116	100

There were 44, or 38%, from Bellows Falls; 50, or 43%, from Brattleboro; and 22, or 19%, from Springfield, making a total of 116 employers.

### Businesses

The businesses were selected on the basis of possible places where the graduates of the high schools of these communities might seek employment. An attempt



TABLE I. GEOGRAPHICAL DISTRIBUTION  
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Towns	Number	Per Cent
Bellevue Falls . . . . .	118	42
Brattleboro . . . . .	104	37
Springfield . . . . .	59	21
Total . . . . .	281	100

There were 118, or 42, from Bellevue Falls; 104, or 37, from Brattleboro; and 59, or 21, from Springfield, making a total of 281 employees.

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Brattleboro . . . . .	50	43
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Total . . . . .	118	100

There were 44, or 38, from Bellevue Falls; 50, or 43, from Brattleboro; and 23, or 19, from Springfield, making a total of 118 employees.

#### Businesses

The businesses were selected on the basis of possible places where the graduates of the high schools of these communities might seek employment. An attempt

was made to select those offices where the force was not large. This research was not intended to be a composite study of the duties of specialized office workers, but rather a study of office workers who do many different types of office work. Studies of the activities of specialized office workers--bookkeepers, secretaries, and clerks in large offices--have been made, but studies analyzing the varied activities of office workers in small communities are lacking. Therefore, an attempt was made to solicit data from office workers employed by concerns where the force is not large. A few exceptions had to be made, as a few of the larger offices in the communities do employ graduates of the high schools in these communities. In order to find out what they expect of high school graduates, they were included in the study. The businesses were selected from the professional, banking, retailing, wholesale and manufacturing fields.

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TABLE III. DISTRIBUTION OF EMPLOYEES  
AS TO TYPES OF BUSINESSES

Type of Business	General Classification		Individual Type	
	No.	%	No.	%
<u>Manufacturing</u> . . . . .	76	27		
Machinery . . . . .			33	.117
Ice Cream, Milk . . . .			9	.032
Paper . . . . .			7	.025
Brushes . . . . .			5	.018
Boxes . . . . .			5	.018
Pipe Organs . . . . .			4	.014
Wool . . . . .			3	.010
Shoes . . . . .			2	.007
Bathroom Fixtures . .			2	.007
Penholders, Brush				
Handles . . . . .			2	.007
Wood Products . . . .			1	.004
Wood Heels . . . . .			1	.004
Tools . . . . .			1	.004
Overalls . . . . .			1	.004
<u>Retailing</u> . . . . .	66	24		
Automobiles . . . . .			20	.071
Lumber . . . . .			7	.025
Gas and Oil . . . . .			7	.025
Shoes . . . . .			6	.021
Dry Goods . . . . .			5	.018
Hardware . . . . .			4	.014
Coal . . . . .			3	.010
Furniture . . . . .			3	.010
Haberdashery . . . . .			2	.007
Stationery and Office				
Supplies . . . . .			2	.007
Flowers . . . . .			1	.004
Office Equipment . .			1	.004
Novelties . . . . .			1	.004
Auto Supplies . . . .			1	.004
Grain . . . . .			1	.004
Electrical Appliances			1	.004
News Shop and Lunch				
Counter . . . . .			1	.004
<u>Financial</u> . . . . .	53	19		
Banks . . . . .			34	.12
Insurance . . . . .			16	.057
Investment Banking . .			2	.007
Real Estate . . . . .			1	.004



TABLE III. DISTRIBUTION OF EMPLOYEES  
AS TO TYPE OF BUSINESS

Individual Type		General Classification		Type of Business
No.	%	No.	%	
117	33	78	27	Manufacturing . . . . .
933	9			Machinery . . . . .
933	7			Ice Cream, Milk . . . . .
918	3			Paper . . . . .
918	3			Brushes . . . . .
914	4			Boxes . . . . .
910	3			Pipe Organs . . . . .
907	3			Wool . . . . .
907	3			Shoes . . . . .
907	3			Bathroom Fixtures . . . . .
907	3			Penholders, Brush . . . . .
904	1			Handles . . . . .
904	1			Wood Products . . . . .
904	1			Wood Heels . . . . .
904	1			Tools . . . . .
904	1			Overalls . . . . .
971	30	86	24	Retailing . . . . .
933	7			Automobiles . . . . .
933	7			Lumber . . . . .
931	6			Gas and Oil . . . . .
918	3			Shoes . . . . .
914	4			Dry Goods . . . . .
910	3			Hardware . . . . .
910	3			Cool . . . . .
907	3			Furniture . . . . .
907	3			Haberdashery . . . . .
907	3			Stationery and Office . . . . .
904	1			Supplies . . . . .
904	1			Flowers . . . . .
904	1			Office Equipment . . . . .
904	1			Novelties . . . . .
904	1			Auto Supplies . . . . .
904	1			Grain . . . . .
904	1			Electrical Appliances . . . . .
904	1			News Shop and Lunch . . . . .
904	1			Counter . . . . .
913	34	83	19	Financial . . . . .
937	16			Banks . . . . .
907	3			Insurance . . . . .
904	1			Investment Banking . . . . .
				Real Estate . . . . .

TABLE III. (Continued) DISTRIBUTION OF EMPLOYEES  
AS TO TYPES OF BUSINESSES

Type of Business	General Classification		Individual Type	
	No.	%	No.	%
<u>Professional</u> . . . . .	22	8		
Law . . . . .			10	.036
Doctors . . . . .			8	.028
Schools . . . . .			4	.014
<u>Wholesale</u> . . . . .	5	2		
Fruit . . . . .			1	.004
Farm Machinery . . . . .			1	.004
Meats . . . . .			1	.004
Poultry . . . . .			2	.007
<u>Miscellaneous</u> . . . . .	59	21		
Motor Express . . . . .			10	.036
Contractors . . . . .			7	.025
Printing . . . . .			6	.021
Railway . . . . .			5	.018
Public Service . . . . .			5	.018
Institutions . . . . .			4	.014
Publishing . . . . .			4	.014
Municipal . . . . .			4	.014
Employment Office . . . . .			3	.010
Social Service . . . . .			3	.010
Bakery . . . . .			3	.010
Cattle Registry . . . . .			2	.007
Monumental Works . . . . .			1	.004
Bottlers . . . . .			1	.004
Plumbing . . . . .			1	.004
Totals . . . . .	281	100	281	100

The largest number, 76, or 27%, were selected from manufacturing concerns. The other selections in order were: retailing, 66, or 24%; financial, 53, or 19%; professional, 22, or 8%; wholesale, 5, or 2%; and miscellaneous, 59, or 21%.



TABLE III. (Continued) DISTRIBUTION OF EMPLOYEES AS TO TYPE OF BUSINESS

Type of Business		General Classification		Individual Type	
No.	%	No.	%	No.	%
Professional . . . . .	22	9		10 .038	
Law . . . . .				1 .028	
Doctors . . . . .				4 .014	
Schools . . . . .					
Wholesale . . . . .	5	2		1 .004	
Auto . . . . .				1 .004	
Auto machinery . . . . .				1 .004	
Meats . . . . .				2 .007	
Printing . . . . .					
Miscellaneous . . . . .	59	21		10 .038	
Motor Express . . . . .				7 .028	
Contractors . . . . .				3 .021	
Printing . . . . .				3 .018	
Railway . . . . .				3 .018	
Public Service . . . . .				4 .014	
Installations . . . . .				4 .014	
Publishing . . . . .				4 .014	
Municipal . . . . .				3 .010	
Employment Office . . . . .				3 .010	
Social Service . . . . .				3 .010	
Bakery . . . . .				2 .007	
Cattle Registry . . . . .				1 .004	
Monumental Works . . . . .				1 .004	
Bottlers . . . . .				1 .004	
Printing . . . . .				1 .004	
Totals . . . . .	281	100		281	100

The largest number, 78, or 27%, were selected from manufacturing concerns. The other selections in order were: retailing, 58, or 21%; financial, 55, or 19%; professional, 22, or 8%; wholesale, 5, or 2%; and miscellaneous, 59, or 21%.

The articles manufactured include such things as machinery, ice cream and milk, paper, brushes, boxes, pipe organs, wool, shoes, bathroom fixtures, penholders and brush handles, wood products, wood heels, tools, and overalls. The retailing group includes the selling of automobiles, lumber, gas and oil, shoes, dry goods, hardware, coal, furniture, haberdashery, stationery and office supplies, flowers, office equipment, novelties, auto supplies, grain, electrical appliances, and news shop and lunch counter. Under the financial classification there are banks, insurance offices, investment banking offices, and real estate offices. The professional classification includes law, doctors, and schools. The wholesale field contains fruit, farm machinery, meats, and poultry. Under the miscellaneous classification are included those offices which could not be given any general term such as motor express, contractors, printing, railway, public service, institutions (hospitals and retreats), publishing, municipal, employment office, social service, bakery, cattle registry, monumental works, bottlers, and plumbing.

Table IV presents the number and per cent of employers selected from each general classification and individual type of business used in this survey. There were 31, or 27%, selected from the retailing field;



The articles manufactured include such things as machinery, ice cream and milk, paper, bristles, boxes, pipe organs, wool, shoes, bathroom fixtures, penholders and brush handles, wood products, wood heels, tools, and overalls. The retailing group includes the selling of automobiles, lumber, gas and oil, shoes, dry goods, hardware, coal, furniture, haberdashery, stationery and office supplies, flowers, office equipment, novelties, auto supplies, grain, electrical appliances, and news shop and lunch counter. Under the financial classification there are banks, insurance offices, investment banking offices, and real estate offices. The professional classification includes law, doctors, and schools. The wholesale field contains fruit, farm machinery, meats, and poultry. Under the miscellaneous classification are included those offices which could not be given any general term such as motor express, contractors, printing, railway, public service, institutions (hospitals and retreats), publishing, municipal, employment office, social service, bakery, cattle registry, monumental works, bottlers, and plumbing.

Table IV presents the number and per cent of employers selected from each general classification and individual type of business used in this survey. There were 51, or 27%, selected from the retailing field;

TABLE IV. DISTRIBUTION OF EMPLOYERS  
AS TO TYPES OF BUSINESSES

Type of Business	General Classification		Individual Type	
	No.	%	No.	%
<u>Retailing</u> . . . . .	31	27		
Automobiles . . . . .			8	.069
Furniture . . . . .			4	.034
Dry Goods . . . . .			4	.034
Coal . . . . .			3	.026
Lumber . . . . .			3	.026
Stationery and Office Supplies . . . . .			2	.017
Novelties . . . . .			2	.017
Electrical Appliances			1	.009
Office Equipment . . .			1	.009
Hardware . . . . .			1	.009
Flowers . . . . .			1	.009
Haberdashery . . . . .			1	.009
<u>Manufacturing</u> . . . . .	21	18		
Paper . . . . .			3	.026
Machinery . . . . .			4	.034
Ice Cream and Milk . .			4	.034
Boxes . . . . .			1	.009
Tools . . . . .			1	.009
Bathroom Fixtures . .			1	.009
Wood Products . . . .			1	.009
Wood Heels . . . . .			1	.009
Wool . . . . .			1	.009
Penholders, brush handles . . . . .			1	.009
Sporting Goods . . . .			1	.009
Brushes . . . . .			1	.009
Shoes . . . . .			1	.009
<u>Financial</u> . . . . .	19	16		
Insurance . . . . .			11	.095
Banks . . . . .			7	.060
Investment Banking . .			1	.009
<u>Professional</u> . . . . .	19	16		
Law . . . . .			10	.086
Doctors . . . . .			5	.043
Schools . . . . .			4	.034





TABLE IV. (Continued) DISTRIBUTION OF EMPLOYERS  
AS TO TYPES OF BUSINESSES

Type of Business	General Classification		Individual Type	
	No.	%	No.	%
Wholesale. . . . .	2	2		
Poultry . . . . .			1	.009
Farm Machinery. . . . .			1	.009
Miscellaneous. . . . .	24	21		
Plumbing. . . . .			4	.034
Railway . . . . .			2	.017
Public Service. . . . .			2	.017
Employment Office . . . . .			2	.017
Printing. . . . .			2	.017
Motor Express . . . . .			2	.017
Publishing. . . . .			2	.017
Monumental Works. . . . .			1	.009
Contractors . . . . .			1	.009
Bottlers. . . . .			1	.009
Municipal . . . . .			1	.009
Bakery. . . . .			1	.009
Institutions. . . . .			1	.009
Social Service. . . . .			1	.009
Totals . . . . .	116	100	116	100

21, or 18%, from the manufacturing field; 19, or 16% from each the financial and professional fields; 2, or 2%, from the wholesale field; and 24, or 21% from miscellaneous business offices which could not be given any general classification. The individual types of business under each classification are similar to those given for the employee distribution in Table III, Pages 14 and 15.

It is evident that a variety of businesses is represented in this study. A fairly comprehensive list of the duties of office workers in small communities should, therefore, result. From these duties conclusions can be drawn for their inclusion into or exclusion from the commercial courses of instruction.



TABLE IV. (Continued) DISTRIBUTION OF EMPLOYERS  
AS TO TYPE OF BUSINESS

Type of Business		General Classification		Individual Type	
		No.	%	No.	%
Wholesale . . . . .	2	2		1	.009
Printing . . . . .	24	21		1	.009
Farm Machinery . . . . .					
Miscellaneous . . . . .					
Financing . . . . .				4	.034
Railway . . . . .				2	.017
Public Service . . . . .				2	.017
Employment Office . . . . .				2	.017
Printing . . . . .				2	.017
Motor Express . . . . .				2	.017
Publishing . . . . .				2	.017
Monumental Works . . . . .				1	.009
Contractors . . . . .				1	.009
Bottlers . . . . .				1	.009
Municipal . . . . .				1	.009
Bakery . . . . .				1	.009
Institutions . . . . .				1	.009
Social Service . . . . .				1	.009
Totals . . . . .	116	100		116	100

21, or 18, from the manufacturing field; 19, or 16, from each the financial and professional fields; 2, or 25, from the wholesale field; and 24, or 21, from miscellaneous business offices which could not be given any general classification. The individual types of business under each classification are similar to those given for the employee distribution in Table III, Pages 14 and 15. It is evident that a variety of businesses is represented in this study. A fairly comprehensive list of the duties of office workers in small communities should, therefore, result. From these duties conclusions can be drawn for their inclusion into or exclusion from the commercial courses of instruction.

## CHAPTER IV

### METHOD OF PROCEDURE

The problem of this thesis, an analysis of the office services performed by office workers in communities of 10,000 population or less as a basis for determining the commercial curriculum content for high schools in such communities, was worked out through the interview and check-list methods of research. The procedure is explained somewhat in the analysis of the problem on Pages 6 and 7. The following steps are given as further explanation in the method of procedure used: (1) analysis of the office services of office workers; (2) compiling final duty list; (3) compiling personality trait list; (4) determining the activities to be learned in school and which on the job based on employees' and employers' judgments; (5) determining the traits essential for office workers to possess to succeed on the job based on employees' and employers' judgments; (6) determining the amount of education office workers in small communities possess.

#### Securing Cooperation of Interviewees

In order to secure more readily the cooperation of the employees and employers to carry on this research,





it was thought advisable to obtain a sponsor for the study. An attempt was made to secure the sponsorship of some sort of public organization of business men, but this proved futile. Another attempt was made, therefore, to secure the sponsorship of the high schools in the communities included in this survey. The study would be of some benefit to the teachers of these high schools. Two of the schools, Bellows Falls High School and Brattleboro High School, were willing to sponsor the survey. It is believed that this helped considerably in gaining the cooperation of the employees and employers.

#### Forms for Gathering Data

It was necessary to determine what forms to use for gathering data for this study.

#### Time Analysis Chart

A representative list of duties to be presented to employees and employers had to be compiled. The first step employed to accomplish this was the compilation of a Time Analysis Chart, shown as Schedule A, Pages 190 and 191, in the Appendix. The 43 duties under seven general classifications which made up this time analysis chart were selected from primary and secondary sources. The primary sources were: (1) the investigator's own experience as an office worker and teacher of commercial



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subjects; (2) suggestions from friends employed as office workers within the community. The secondary sources were: (1) Charters and Whitley's study<sup>9</sup>; (2) Nichols' study<sup>10</sup>; (3) textbooks on secretarial practice.

The list of duties was duplicated on 8½ by 14-inch paper so that all the duties could be listed on a single sheet. Opposite the list of duties were placed 9 columns giving the time of the day in hours from 8 A. M. to 5 P. M. Each of these sheets represented one working day.

Cooperation was solicited from 13 office workers to help compile the final duty list through the medium of this time analysis chart. Table V shows the types of businesses from which these office workers were chosen and the number and per cent representing each business.

The manufacturing field contributed 4, or 30.77%, employees; two were chosen from the office of a brush manufacturing concern, one from a paper, and another from a machinery manufacturing concern. Two, or 15.39%,

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9. W. W. Charters and Isadore B. Whitley, Analysis of Secretarial Duties and Traits. Baltimore: Williams and Wilkins Co., 1924. 186 pp.

10. Frederick G. Nichols and Sally W. Wissmann, The Personal Secretary: Differentiating Duties and Traits. Cambridge: Harvard University Press, 1934. 105 pp.



it was thought advisable to obtain a sponsor for the study. An attempt was made to secure the sponsorship of some sort of public organization of business men, but this proved futile. Another attempt was made, therefore, to secure the sponsorship of the high schools in the communities included in this survey. The study would be of some benefit to the teachers of these high schools. Two of the schools, Bellows Falls High School and Brattleboro High School, were willing to sponsor the survey. It is believed that this helped considerably in gaining the cooperation of the employees and employers.

#### Forms for Gathering Data

It was necessary to determine what forms to use for gathering data for this study.

#### Time Analysis Chart

A representative list of duties to be presented to employees and employers had to be compiled. The first step employed to accomplish this was the compilation of a Time Analysis Chart, shown as Schedule A, Pages 190 and 191, in the Appendix. The 43 duties under seven general classifications which made up this time analysis chart were selected from primary and secondary sources. The primary sources were: (1) the investigator's own experience as an office worker and teacher of commercial

TABLE V. DISTRIBUTION OF EMPLOYEES  
SOLICITED FOR TIME ANALYSIS CHARTS

Businesses	Number	Per Cent
Manufacturing (paper, brush, machinery) . . . . .	4	30.77
Retailing . . . . .	2	15.39
Banking . . . . .	2	15.39
Law . . . . .	1	7.69
School. . . . .	1	7.69
Bakery. . . . .	1	7.69
Social Service. . . . .	1	7.69
Employment Office . . . . .	1	7.69
Totals . . . . .	13	100.00

were chosen from each the retailing and banking fields; and one each from law, school, bakery, social service, and employment offices.

Each of the workers was interviewed personally. They were given six of these time analysis charts-- one for each working day in the week. They were requested to keep a record for a week on this chart of all the duties they performed during that week, giving the exact time spent on each duty in the columns provided for that purpose on the sheets.

The cooperation received from these office workers was very good. Each of them returned the time analysis charts accurately filled out. A few, however, did not give the time spent on some of the duties. When the charts were collected at the end of the week, the returns were tabulated. A summary of these returns is shown in Table VI, Pages 23-27.



TABLE V. DISTRIBUTION OF EMPLOYERS  
SOLICITED FOR TIME ANALYSIS CHARTS

Businesses	Number	Per Cent
Totals . . . . .	13	100.00
Employment Office . . . . .	1	7.69
Social Service . . . . .	1	7.69
Bakery . . . . .	1	7.69
School . . . . .	1	7.69
Law . . . . .	1	7.69
Banking . . . . .	2	15.38
Retailing . . . . .	2	15.38
Machinery . . . . .	2	15.38
Manufacturing (paper, brush, . . . . .	4	30.77

were chosen from each the retailing and banking fields; and one each from law, school, bakery, social service, and employment offices.

Each of the workers was interviewed personally. They were given six of these time analysis charts--one for each working day in the week. They were requested to keep a record for a week on this chart of all the duties they performed during that week, giving the exact time spent on each duty in the columns provided for that purpose on the sheets.

The cooperation received from these office workers was very good. Each of them returned the time analysis charts accurately filled out. A few, however, did not give the time spent on some of the duties. When the charts were collected at the end of the week, the returns were tabulated. A summary of these returns is shown in Table VI, Pages 23-27.

TABLE VI. SUMMARY OF DUTIES FROM TIME ANALYSIS CHARTS

Rank	DUTIES	Number of People Per- forming Duty	Frequency of Performance	Minutes
3.5	Keep Books and Ledgers. . . . .	7	102	4,310
3.5	Filing. . . . .	7	47	1,585
3.5	Take Dictation. . . . .	7	38	1,390
3.5	Transcribe from Shorthand Notes . . . .	7	37	1,375
3.5	Check Bills and Invoices. . . . .	7	26	1,055
3.5	Wait on Customers . . . . .	7	56	530
9.5	Operate Calculating Machine - <u>Adding</u> . .	6	51	1,075
9.5	Read, Sort, and Classify Mail . . . . .	6	34	550
9.5	Fold Letters and Insert in Envelopes. .	6	28	515
9.5	Take Mail to Post Office. . . . .	6	28	300
9.5	Order Supplies for Office . . . . .	6	11	160
9.5	Type Orders from Copy . . . . .	6	6	140
14.5	Type Bills, Invoices from Copy. . . . .	5	31	1,565
14.5	Make Bank Deposit . . . . .	5	22	365
14.5	Address Envelopes, Packages . . . . .	5	17	340
19.5	Type Checks . . . . .	4	14	460
19.5	Compose Letters for Employer. . . . .	4	11	405
19.5	Balance Cash Daily. . . . .	4	22	350
19.5	Get Mail at Post Office . . . . .	4	27	290
19.5	Hear Complaints in Office and Over Telephone. . . . .	4	11	215
19.5	Figure Inventory. . . . .	4	6	175





TABLE VI. (Continued) SUMMARY OF DUTIES FROM TIME ANALYSIS CHARTS

Rank	DUTIES	Number of People Per- forming Duty	Frequency of Performance	Minutes
19.5	Make Monthly Statements . . . . .	4	9	280
24.5	Make Journal Entries. . . . .	3	17	600
24.5	Type Letters from Copy. . . . .	3	10	285
24.5	Write Receipts. . . . .	3	9	260
24.5	Keep Petty Cash Book. . . . .	3	3	70
31.5	Type from Dictating Machine . . . . .	2	35	1,415
31.5	Operate Calculating Machine - <u>Subtracting</u>	2	19	310
31.5	Operate Mimeograph. . . . .	2	7	225
31.5	Operate Calculating Machine - <u>Multiplying</u>	2	8	170
31.5	Take Trial Balance. . . . .	2	3	135
31.5	Type Case Histories from Copy . . . . .	2	3	135
31.5	Type Articles, Manuscripts from Copy. . .	2	4	90
31.5	Cut Stencils. . . . .	2	3	40
31.5	Keep Employer Reminded of Engagements . .	2	3	35
61.5	Figure Pay Rolls. . . . .	1	15	900
61.5	Record Probate Records for Settling Estates. . . . .	1	21	840
61.5	Assemble Orders and Attach Bills of Lading . . . . .	1	6	265
61.5	Shave Dictaphone Records. . . . .	1	7	170
61.5	Type New Index Cards. . . . .	1	3	165
61.5	Rule Ledger . . . . .	1	5	130





TABLE VI. (Continued) SUMMARY OF DUTIES FROM TIME ANALYSIS CHARTS

Rank	DUTIES	Number of People Per- forming Duty	Frequency of Performance	Minutes
61.5	Consultation in Regard to Settling Estates . . . . .	1	3	125
61.5	Look Up Shipping Dates . . . . .	1	5	105
61.5	Prepare Club Cards for Following Day . .	1	5	95
61.5	Cash Money Drawer and Clear Cash Regis- ter . . . . .	1	6	90
61.5	Type Packing Slips . . . . .	1	1	70
61.5	Put Up Paper Samples . . . . .	1	3	60
61.5	Type Legal Documents from Copy . . . . .	1	1	60
61.5	Receive and Record Cash of Delivery Truck Drivers . . . . .	1	1	60
61.5	Record Invoices. . . . .	1	1	60
61.5	Clean Files. . . . .	1	1	60
61.5	Balance Club Cash. . . . .	1	3	55
61.5	Write Daily Statement. . . . .	1	1	45
61.5	Credit Checks Received for Settling Estates . . . . .	1	2	30
61.5	Assemble Case Records. . . . .	1	1	30
61.5	Record New Employees . . . . .	1	1	30
61.5	Make Out Separation Notices. . . . .	1	1	30
61.5	Prepare Pay Roll Report. . . . .	1	1	30
61.5	Look Up Records of Different Estates . .	1	1	30
61.5	Draw Club Cards for Posting. . . . .	1	2	25





TABLE VI. (Continued) SUMMARY OF DUTIES FROM TIME ANALYSIS CHARTS

Rank	DUTIES	Number of People Per- forming Duty	Frequency of Performance	Minutes
61.5	Operate Hectograph . . . . .	1	1	20
61.5	Type Medical Records . . . . .	1	1	20
61.5	Type Minutes of Meetings from Copy . . . .	1	1	15
61.5	Type Receiving Report on Car of Paper. . .	1	1	15
61.5	Post Ledger Cards of Clubs . . . . .	1	1	15
61.5	Assemble Slips Recording Merchandise Sent Out on Approval . . . . .	1	1	15
61.5	Indexing . . . . .	1	1	15
61.5	Make Engagements and Appointments. . . . .	1	2	10
61.5	Answer Telephone . . . . .	1	1	10
61.5	Copy Court Order on Estate . . . . .	1	1	10
61.5	Keep Expense Accounts. . . . .	1	2	--
61.5	Type Registration Cards (Employment Office) . . . . .	1	2	--
61.5	Make Out Social Security and Unemployment Reports . . . . .	1	2	--
61.5	Post Salesmen's Commissions. . . . .	1	2	--
61.5	Pay Bills. . . . .	1	1	--
61.5	Make Out Notes . . . . .	1	1	--
61.5	Balance Sales Ledger . . . . .	1	1	--
61.5	Check Credits on Customers . . . . .	1	1	--
61.5	Balance Accounts Payable Ledger. . . . .	1	1	--



TABLE VI. (Continued) SUMMARY OF DUTIES AND THE ANALYSIS OF COSTS

Item	DUTIES	Number of hours required to complete the duty	Number of hours actually spent on the duty	Percentage of time spent on the duty
61.5	Balance Accounts Payable Ledger . . . . .	1	1	100
61.5	Check Credits on Cash . . . . .	1	1	100
61.5	Balance Sales Ledger . . . . .	1	1	100
61.5	Make Out Sales Order . . . . .	1	1	100
61.5	Pay Sales . . . . .	1	1	100
61.5	Post Salesmen's Commissions . . . . .	2	2	100
61.5	Make Out Social Security and Unemployment Reports . . . . .	2	2	100
61.5	Type Application Cards (Employment Office) . . . . .	2	2	100
61.5	Keep Expense Accounts . . . . .	2	2	100
61.5	Copy Court Order on Estate . . . . .	1	1	100
61.5	Answer Telephone . . . . .	1	1	100
61.5	Make Payments and Appearances . . . . .	2	2	100
61.5	Indexing . . . . .	1	1	100
61.5	Vote on Approval . . . . .	1	1	100
61.5	Assemble Bills Recording Merchandise Sold	1	1	100
61.5	Post Ledger Cards of Sales . . . . .	1	1	100
61.5	Type Recording Report on Car of Sales . . . . .	1	1	100
61.5	Type Minutes of Meetings from Copy . . . . .	1	1	100
61.5	Type Medical Records . . . . .	1	1	100
61.5	Operate Dictograph . . . . .	1	1	100

TABLE VI. (Continued) SUMMARY OF DUTIES FROM TIME ANALYSIS CHARTS

Rank	DUTIES	Number of People Per- forming Duty	Frequency of Performance	Minutes
61.5	Send Out Collection Letters. . . . .	1	1	--
61.5	Arrange Checks for Clearing House. . . . .	1	6	--
61.5	Figure Service Charges on Checking Ac- counts. . . . .	1	1	--
61.5	Post Service Charges on Ledger Cards . . . .	1	1	--
61.5	Arrange and Post Checks from Clearing House	1	6	--
61.5	Post Checks and Deposits . . . . .	1	6	--
61.5	Prepare Statements of Checking Accounts. .	1	1	--
61.5	Figure Interest on Savings Accounts. . . .	1	1	--



TABLE VI. (Continued) SUMMARY OF DUTIES FOR THE MAINTENANCE OF THE

UNIT	UNIT	UNIT	UNIT	UNIT
61.5	Send Out Collection Letters . . . . .	1	1	--
61.5	Arrange Checks for Clearing House . . . . .	1	8	--
61.5	Figure Service Charges on Checking Accounts . . . . .	1	1	--
61.5	Post Service Charges on Ledger Cards . . . . .	1	1	--
61.5	Arrange and Post Checks from Clearing House . . . . .	1	8	--
61.5	Post Checks and Receipts . . . . .	1	8	--
61.5	Prepare Statements of Checking Accounts . . . . .	1	1	--
61.5	Figure Interest on Savings Accounts . . . . .	1	1	--

The duties were tabulated according to the greatest number of people who reported performing the duty. Then consideration was given to the frequency of performance of each duty; that is, the number of times the duty was performed during the week by the employees who claimed they performed it. Finally, in the third column of the table, is given the total number of minutes spent on each duty during that week by those who performed the duty.

All of the duties on the time analysis chart except two were checked at least by one of the thirteen employees. These two duties were "Operate Addressograph" and "Operate the Calculating Machine" for dividing purposes. These two duties were not excluded from the final duty list, as it was felt that some of the employees to whom the final duty list would be sent would be performing them.

Although there were only 43 duties on the time analysis chart, the number of duties increased to 87 when Summary Table VI was organized. The employees had added 46 new duties, most of which pertained to the particular business in which they were located.

#### Duty List to Employees

The final duty list, shown as Schedule B, Pages 192-196, in the Appendix was compiled from Table VI. A few changes were made in the listing of the duties.



The duties were tabulated according to the greatest number of people who reported performing the duty. Then consideration was given to the frequency of performance of each duty; that is, the number of times the duty was performed during the week by the employees who claimed they performed it. Finally, in the third column of the table, is given the total number of minutes spent on each duty during that week by those who performed the duty.

All of the duties on the time analysis chart except two were checked at least by one of the fifteen employees. These two duties were "operate Addressograph" and "operate the Calculating Machine" for dividing purposes. These two duties were not excluded from the final duty list, as it was felt that some of the employees to whom the final duty list would be sent would be performing them.

Although there were only 43 duties on the time analysis chart, the number of duties increased to 87 when Summary Table VI was organized. The employees had added 44 new duties, most of which pertained to the particular business in which they were located.

#### Duty List to Employees

The final duty list, shown as Schedule E, pages 122-123, in the Appendix was compiled from Table VI. A few changes were made in the listing of the duties.

For example, "Keep Books and Ledgers" was thought to be too general a term, so it was used as a main classification of detailed duties concerned with keeping books and ledgers. The duty "Make Monthly Statements" was changed to two duties--"Prepare Profit and Loss Statement" and "Prepare Balance Sheet." Some of the duties given by the employees suggested new ones to be added to the final duty list. "Balance Accounts Payable Ledger" suggested "Keep Accounts Payable Ledger" and "Keep Accounts Receivable Ledger." Similarly, "Balance Sales Ledger" suggested "Keep Sales Ledger" and "Keep Purchases Ledger."

The final duty list contained 88 duties with duty No. 22, "Operate Calculating Machine," broken up into four parts: adding, subtracting, multiplying, and dividing. Space was also provided under each of the processes for the employees to describe the types of problems they solved when using the calculating machine for each of these processes. This information, it was thought, would reveal if instruction in any of the problems described could be given in the high school.

The 88 duties were classified respectively under the following nine headings: Keep Books and Ledgers; Filing; Stenographic Duties; Clerical Duties; Type from Copy; Operate Duplicating Machines; Mailing Duties;





Meeting and Handling People; and Duties Peculiar to Banking Concerns. Space was provided for employees to add any additional duties.

In addition to finding out what activities office workers performed, it was attempted to determine which of these activities were important and which unimportant. Columns were provided on the check list for securing this information. Further means had to be provided for ascertaining the duties which might better be learned in school, which on the job, and which in school and on the job. Provision was made for gathering this information by including three more columns on the check list-- "school," "job," and "school-job." The employees were to place a check mark in the column marked "school" if they felt that the duty should be learned in school, in the "job" column if it could be learned on the job, and in the "school-job" column if instruction were needed in school with further training on the job. These data would make it possible to determine to some extent which of these activities should be learned in school and which on the job.

In addition to the above information, it was attempted to ascertain the approximate time spent by these office workers on each duty in an effort to further establish the importance or unimportance of the duties. Columns



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In addition to the above information, it was attempted  
 to ascertain the approximate time spent by these office  
 workers on each duty in an effort to further establish  
 the importance or unimportance of the duties. Columns

for securing this information were provided on the sheet with headings "Minutes per day," "Hours per week," and "Weeks per year."

The list of duties was duplicated on both sides of an 8½ by 14-inch sheet of paper so that it would be more easily handled by employees, employers, and investigator.

#### Duty List to Employers

A similar duty list was compiled to be distributed to employers to find out from them what they expected their office workers to be able to do. This check list of duties contained the same duties as that which was distributed to the employees, but it did not contain space for giving the time element for each duty. Each employer was to consider each duty on the list that he expected his office workers to be able to perform, or others which he might add to the list, for the following points: important or unimportant, and whether each of the duties checked should be taught in school, learned on the job, or learned in school and on the job. The check list of duties as distributed to the employers is shown as Schedule C, Pages 197-199, in the Appendix.

#### Personality Trait Ranking Sheet

In addition to securing data concerning the duties of office workers in small communities as has already



For securing this information were provided on the sheet with headings "Minutes per day," "Hours per week," and "Weeks per year."

The list of duties was duplicated on both sides of an 8 1/2 by 11-inch sheet of paper so that it would be more easily handled by employees, employers, and investigator.

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A similar duty list was compiled to be distributed to employers to find out from them what they expected their office workers to be able to do. This check list of duties contained the same duties as that which was distributed to the employees, but it did not contain space for giving the time element for each duty. Each employer was to consider each duty on the list that he expected his office workers to be able to perform, or others which he might add to the list, for the following points: important or unimportant, and whether each of the duties checked should be taught in school, learned on the job, or learned in school and on the job. The check list of duties as distributed to the employers is shown as Schedule C, pages 127-129, in the Appendix.

#### Personality Trait Ranking Sheet

In addition to securing data concerning the duties of office workers in small communities as has already

been explained, this study also attempted to determine the personality traits which employees and employers felt were necessary for office workers to possess to succeed on the job. Therefore, a list of 32 personality traits, arranged alphabetically with a definitive statement after each one, was duplicated. Parentheses were placed to the left of each statement, in which the employees and employers were to rank the traits in the order of their importance. This list of traits was taken from Nichols' study.<sup>11</sup> It was felt that this list was complete in every detail and that it could not have been improved upon if an attempt had been made to construct a new one. The original list was constructed from every available source of such information, such as contributions of writers of articles on the subject, authors of secretarial books, teachers of secretarial students, lecturers on the subject, and research workers. The original list contained 34 traits, but only 32 were selected for this study, omitting "Executive Ability" and "Organizing Ability." It was felt that these two were distinctly applicable to secretarial positions and would not particularly concern office workers in small communities.

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11. Ibid., pp. 14-15.



been explained, this study also appeared to demonstrate the personality traits which employees and managers felt were necessary for office workers to possess to succeed on the job. Therefore, a list of 18 personality traits, arranged alphabetically with a definition attached, was sent after each one, was duplicated. Participants were placed at the tail of each statement, in which the adjectives and adverbs were to rank the traits in the order of their importance. This list of traits was taken from Nichols' study. It was felt that this list was complete in every detail and that it could not have been improved upon if an attempt had been made to construct a new one. The original list was constructed from every available source of human information, such as contributions of writers of profiles of the subject, authors of biographical books, teachers of biographical students, lecturers on the subject, and research reports. The original list contained 34 traits, but only 18 were selected for this study, omitting "Executive Ability" and "Organizing Ability". It was felt that these two were distinctly qualities of superior positions and would not particularly concern office workers in small organizations.

The personality trait list as used in this study is shown as Schedule D, Pages 200-201, in the Appendix. It was distributed to employees and employers for their judgments.

#### Education Questionnaire

The final part of this study was concerned with the educational qualifications--general and business--of the office workers in the communities surveyed. It was attempted to determine how many high school graduates obtained office jobs without further training beyond the high school. The form used to collect this information is shown as Schedule E, Page 202, in the Appendix. The form is similar to the one used by Nichols.<sup>12</sup> In addition to obtaining information concerning the employee's education, this form also secured information concerning the employee's job--name, location, and occupation of concern, and title of employee's position. This form was duplicated on the other side of the sheet that contained the personality trait ranking list.

#### Distribution of Check Lists

These forms--Check List of Duties, Personality Trait Ranking Sheet, and Education Form (Schedules B, D, and E)--were distributed to 281 employees;

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12. Ibid., p. 100.



The personality trait list as used in this study is shown as Schedule D, Pages 290-301, in the Appendix. It was distributed to employees and employers for their judgments.

#### Education Questionnaire

The final part of this study was concerned with the educational qualifications--general and business--of the office workers in the communities surveyed. It was attempted to determine how many high school graduates obtained office jobs without further training beyond the high school. The form used to collect this information is shown as Schedule E, Page 302, in the Appendix. The form is similar to the one used by Nichols.<sup>12</sup> In addition to obtaining information concerning the employee's education, this form also secured information concerning the employee's job-name, location, and occupation of course, and title or employee's position. This form was distributed on the other side of the sheet that contained the personality trait ranking list.

#### Description of Check List

These forms--Check List of Duties, Personality Trait Ranking Sheet, and Education Form (Schedule E, D, and E)--were distributed to 281 employees;

118 from Bellows Falls, 104 from Brattleboro, and 59 from Springfield, as shown in Table I, Page 12. The forms were accompanied by a letter, Schedule F, Page 203, explaining the purpose of the study and requesting the employee's cooperation. On the other side of the sheet that contained the letter were given the directions, Schedule G, Page 204, for the employee to follow in filling out the questionnaires.

The forms Schedules C and D, Pages 197-201, were distributed to employers of office workers in Bellows Falls, Brattleboro, and Springfield. The number of employers to whom these questionnaires were distributed was 116--44 in Bellows Falls, 50 in Brattleboro, and 22 in Springfield, as shown in Table II, Page 12. Along with the forms was sent a letter, Schedule H, Page 205, explaining the purpose of the study and requesting the employer's cooperation to help make the research a success. On the other side of the sheet containing the letter were given the directions, Schedule I, Page 206, to enable the employer to properly fill in the questionnaires.

In Bellows Falls it was possible to distribute these check lists in person or through the cooperation of high school pupils who were related to or were friends of the office workers in the community. This personal



118 from Bellows Falls, 104 from Brattleboro, and 32 from Springfield, as shown in Table I, Page 12. The forms were accompanied by a letter, Schedule F, Page 203, explaining the purpose of the study and requesting the employer's cooperation. On the other side of the sheet that contained the letter were given the directions, Schedule G, Page 204, for the employer to follow in filling out the questionnaires.

The forms Schedules C and D, Pages 197-201, were distributed to employers of office workers in Bellows Falls, Brattleboro, and Springfield. The number of employers to whom these questionnaires were distributed was 118-44 in Bellows Falls, 30 in Brattleboro, and 32 in Springfield, as shown in Table II, Page 13. Along with the forms was sent a letter, Schedule H, Page 205, explaining the purpose of the study and requesting the employer's cooperation to help make the research a success. On the other side of the sheet containing the letter were given the directions, Schedule I, Page 206, to enable the employer to properly fill in the questionnaires.

In Bellows Falls it was possible to distribute these check lists in person or through the cooperation of high school pupils who were related to or were friends of the office workers in the community. This personal

contact made it possible to get back a large percentage of the check lists. It was impossible to personally contact the workers of the other two communities, and, therefore, the check lists had to be mailed to them.

A postal card follow-up was sent about two weeks after the check lists had been mailed.

Table VII shows the results of the follow-up. Returns continued to come in after the data had been tabulated. These returns, however, would not have made any appreciable difference in the final results of the study. A survey of these late returns indicated that the duties and traits checked would not have changed the ranking of either the duties or the traits. Table VII shows the number and per cent of returns from employees from the different communities.

TABLE VII  
CHECK LIST MAILING DATA--EMPLOYEES

Community	Lists Mailed	Lists Returned	Per Cent Returned
Pellows Falls	112	43	38
Brooklawn	104	40	38
Springfield	100	32	32
Totals	316	115	36

Of the 115 check lists distributed, 100, or 87%, were returned--43 out of 112 (38%) from Pellows Falls,



contact made it possible to get back a large percentage of the check lists. It was impossible to personally contact the workers of the other two communities, and, therefore, the check lists had to be mailed to them. A postal card follow-up was sent about two weeks after the check lists had been mailed.

## CHAPTER V

### ANALYSIS OF RETURNS

#### Check List Returns

The percentage of returns was very good in Bellows Falls and fair in Brattleboro and Springfield. Returns continued to come in after the data had been tabulated. These returns, however, would not have made any appreciable difference in the final results of the study. A survey of these late returns indicated that the duties and traits checked would not have changed the ranking of either the duties or the traits. Table VII shows the number and per cent of returns from employees from the different communities.

TABLE VII  
CHECK LIST MAILING DATA--EMPLOYEES

Towns	Sent	Re- turned	Per Cent Returned
Bellows Falls.	118	93	79
Brattleboro. .	104	49	47
Springfield. .	59	26	44
Totals. .	281	168	69

Of the 281 check lists distributed, 168, or 60%, were returned--93 out of 118 (79%) from Bellows Falls,



# CHAPTER V ANALYSIS OF RETURNS

## Check List Returns

The percentage of returns was very good in Bellows Falls and fair in Brattleboro and Springfield. Returns continued to come in after the data had been tabulated. These returns, however, would not have made any appreciable difference in the final results of the study. A survey of these late returns indicated that the duties and traits checked would not have changed the ranking of either the duties or the traits. Table VII shows the number and per cent of returns from employees from the different communities.

TABLE VII  
CHECK LIST MAILING DATA--EMPLOYEES

Towns	Sent	Returned	Per Cent Returned
Bellows Falls	118	92	78
Brattleboro	104	49	47
Springfield	59	33	56
Totals	281	174	62

Of the 281 check lists distributed, 174, or 62%, were returned--33 out of 118 (28%) from Bellows Falls,

49 out of 104 (47%) from Brattleboro, and 26 out of 59 (44%) from Springfield.

The number and per cent of returns from employers from the various towns are shown in Table VIII.

TABLE VIII  
CHECK LIST MAILING DATA--EMPLOYERS

Towns	Sent	Re- turned	Per Cent Returned
Bellows Falls . .	44	36	82
Brattleboro . . .	50	29	58
Springfield . . .	22	13	59
Totals . . .	116	78	67

Of the 116 employers, 78 (67%) made returns--7% more than the employees. In Bellows Falls, 36 out of 44 (82%) made returns; in Brattleboro, 29 out of 50 (58%); and in Springfield, 13 out of 22 (59%).

### Sex Distribution

There has always been some question as to the opportunities for each sex in obtaining office work. According to occupational statistics, there were employed in office work in 1930, 1,774,434 men and 1,864,404 women.<sup>13</sup> These totals include bookkeepers, clerks, stenographers, and typists. These figures

13. Statistical Abstract of the United States. United States Department of Commerce, Bureau of Foreign and Domestic Commerce. Washington, D. C., 1936. p. 64.



42 out of 104 (40%) from Brattleboro, and 28 out of 59

(48%) from Springfield.

The number and per cent of returns from employers

from the various towns are shown in Table VIII.

TABLE VIII  
CHECK LIST MAILING DATA--EMPLOYERS

Town	Per cent Returned	Per cent Returned
Bellevue Falls	44	32
Brattleboro	50	29
Springfield	22	13
Totals	116	74

Of the 116 employers, 78 (67%) made returns--

7% more than the employees. In Bellevue Falls, 28 out

of 44 (64%) made returns; in Brattleboro, 29 out of 59

(49%); and in Springfield, 13 out of 22 (59%).

#### Sex Distribution

There has always been some question as to the

opportunities for each sex in obtaining office work.

According to occupational statistics, there were em-

ployed in office work in 1930, 1,774,434 men and

1,324,404 women. These totals include bookkeepers,

clerks, stenographers, and typists. These figures

13. Statistical Abstract of the United States.

United States Department of Commerce, Bureau of Economic  
and Domestic Commerce. Washington, D. C., 1932. p. 64.

show that members of the female sex as office workers exceed the members of the male sex by 89,970, or by 2%. The men made up 49% of the office workers, while the women made up 51%.

The situation in this study, however, is considerably different. Members of the female sex employed as office workers have quite a majority over the male sex. Of the 168 employees, 136, or 81%, are women, and 32, or 19%, are men. The distribution when the check lists were distributed was 75% women and 25% men. When the returns came in, however, the distribution was still more in favor of the women--81% to 19%--as cited in Table IX. These figures seem to indicate that opportunities for boys as office workers in these communities are not so great as those for girls.

TABLE IX. SEX DISTRIBUTION OF EMPLOYEES

Towns	Female		Male		Totals	
	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent
Bellows Falls. .	77	46	16	10	93	55
Brattleboro. . .	39	23	10	6	49	29
Springfield. . .	20	12	6	3	26	16
Totals. . .	136	81	32	19	168	100

included under each of the above general classifications. Table III, Pages 14 and 15, may be consulted.

Table II presents the number of returns from employers according to the general classifications of the businesses selected for this study.





Distribution as to Types of Businesses

In order that some idea may be gained as to the number and per cent of the types of businesses from which employees returned check lists, Table X was compiled. Only the general classifications of the businesses are given.

TABLE X. CHECK LIST RETURNS FROM EMPLOYEES  
ACCORDING TO GENERAL CLASSIFICATIONS OF BUSINESSES

Classification	Number	Per Cent
Manufacturing . . . . .	45	27
Retailing . . . . .	40	24
Financial . . . . .	27	16
Professional. . . . .	13	7
Wholesale . . . . .	1	1
Miscellaneous . . . . .	42	25
Totals . . . . .	168	100

Manufacturing leads the list with 45, or 27%, returns, with the following in correct order: Retailing, 40, or 24%; Financial, 27, or 16%; Professional, 13, or 7%; Wholesale, 1, or 1%; Miscellaneous, 42, or 25%. For a general idea as to the individual types of businesses included under each of the above general classifications, Table III, Pages 14 and 15, may be consulted.

Table XI presents the number of returns from employers according to the general classifications of the businesses selected for this study.





TABLE XI. CHECK LIST RETURNS FROM EMPLOYERS  
ACCORDING TO GENERAL CLASSIFICATIONS OF BUSINESSES

Classification	Number	Per Cent
Retailing . . . . .	23	30
Manufacturing . . . . .	14	18
Financial . . . . .	13	17
Professional. . . . .	8	10
Wholesale . . . . .	1	1
Miscellaneous . . . . .	19	24
Totals . . . . .	78	100

In the case of the employers the Retailing heads the list with 23, or 30%, returns, with the other classifications coming in the following order: Manufacturing, 14, or 18%; Financial, 13, or 17%; Professional, 8, or 10%; Wholesale, 1, or 1%; and Miscellaneous, 19, or 24%. The reason why retailing heads the list with employers instead of manufacturing, as is the case with the employees, is that there are many more retail establishments than manufacturing concerns; thus, there are more employers in that field. One manufacturing concern employs more office workers than one retail concern; therefore, there are more office workers in the manufacturing field than in the retail. The ratio of employee-employer in the retail field is about 2 to 1 (in some cases 1 to 1), whereas in the manufacturing field, it is about 4 to 1 (in some cases as high as 10 to 1).



TABLE XI. CHECK LIST FOR THE EMPLOYERS  
ACCORDING TO GENERAL CLASSIFICATIONS OF EMPLOYERS

Classification	Number	Per Cent
Retailing . . . . .	25	20
Manufacturing . . . . .	14	12
Wholesale . . . . .	13	17
Professional . . . . .	8	10
Wholesale . . . . .	1	1
Miscellaneous . . . . .	10	14
Totals . . . . .	78	100

In the case of the employers the Retailing heads the list with 25, or 30%, returns, with the other classifications coming in the following order: Manufacturing, 14, or 18%; Wholesale, 13, or 17%; Professional, 8, or 10%; Wholesale, 1, or 1%; and Miscellaneous, 10, or 14%. The reason why retailing heads the list with employers instead of manufacturing, as is the case with the employer is that there are many more retail establishments than manufacturing concerns; thus, there are more employers in that field. One manufacturing concern employs more office workers than one retail concern; therefore, there are more office workers in the manufacturing field than in the retail. The ratio of employer-employee in the retail field is about 2 to 1 (in some cases 1 to 1), whereas in the manufacturing field, it is about 4 to 1 (in some cases as high as 10 to 1).

The check lists returned were fairly well filled out. All the employees, however, did not check the time element on the check list of duties, claiming that they had too many interruptions to be able to estimate even approximately the time spent on each duty performed. This was especially true of those employees who made up an office force of one and who did all the varied duties of office work. Table XII presents data regarding the number and per cent of returns giving the time spent on each duty performed.

TABLE XII. RETURNS CONTAINING TIME ELEMENT

	Number	Per Cent
Returns with Time. . . .	93	55
Returns without Time . .	75	45
Totals. . . . .	168	100

Of the 168 returns, 93, or 55%, gave the time. From these returns it was possible to get at least an approximate average of the time spent by office workers in small communities on each of the duties on the check list.

Some of the Personality Trait Ranking Sheets were not correctly filled out and some were not filled out at all. From the employees, 15 out of the 168 returned (9%) could not be used, and from the employers, 11 out of the 78 returned (15%) could not be used.



The check lists returned were fairly well filled out. All the employees, however, did not check the time element on the check list of duties, claiming that they had too many interruptions to be able to estimate even approximately the time spent on each duty performed. This was especially true of those employees who made up an office force of one and who did all the varied duties of office work. Table XII presents data regarding the number and per cent of returns giving the time spent on each duty performed.

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Analysis of Duties by Employees

The Duty Lists returned were tabulated and the frequency ranking of the duties by employees is shown in Table XIII, Pages 44-52. This Master Table represents a tabulation of all the duties (91) on the check list sent to the employees, plus 19 selected from the 170 additional duties collected from the employees' returns. These 19 duties were selected on the basis of frequency of performance and on their general character as being common to more than one type of business. Those duties having a Duty Number higher than 91 in Table XIII, Pages 44-52, were selected from the additional duties given by the employees.

The "Frequency" column indicates the number of times each particular duty was reported as having been performed by the employees. The "Important" column indicates how many employees considered the duty important; the "Unimportant" column, how many considered it unimportant. The "School," "Job," and "School-Job" columns show how many employees checking the duty thought it should be taught in school, on the job, or in school and on the job. The "Minutes Per Day," "Hours Per Week," and "Weeks Per Year" columns represent the total number of minutes, hours, and weeks spent on each duty by those employees who gave the time on the check lists.





Findings

The top ranking duty as to frequency of performance is "Answer Telephone," with 109 out of 168 performing it, 88 considering it important and 21 unimportant; 14 claim it can be taught in school, 64 on the job, and 31 in school and on the job. The total time spent on this duty per day was 1,875 minutes. This total would have been much greater if all the employees had given the time spent on the duty. As it is, this total represents the time spent on the duty by only 31 employees. Many employees claimed that it was too difficult to estimate the time spent in performing this duty as it varied so with each call.

The duties ranking high as to performance and time spent on them are the stenographic duties "Take Dictation" and "Transcribe from Shorthand Notes." Of the 168 employees, 91 performed both duties, with 90 considering them important. Seventy-seven thought "Take Dictation" should be taught in school, 12 in school and on the job, and none on the job. Totals of 2,650 minutes per day,  $246\frac{1}{2}$  hours per week, and 2,349 weeks per year were spent on the duty. Eighty thought that "Transcribe from Shorthand Notes" should be taught in school, 9 in school and on the job, and none on the job. Totals of 3,560 minutes per day,  $340\frac{1}{2}$  hours per week, and 2,300 weeks per year were spent on the duty.





TABLE XIII. FREQUENCY RANKING OF DUTIES BY EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
48	1	Answer Telephone . . . . .	109	88	21	14	64	31	1875	188	1582
14	2	Filing . . . . .	105	98	7	51	7	47	2360	240 $\frac{1}{4}$	2320
24	3	Make Bank Deposit. . . . .	93	87	6	32	23	38	745	75 $\frac{3}{4}$	2052
15	4.5	Take Dictation . . . . .	91	90	1	80	0	11	2650	246 $\frac{1}{2}$	2349
16	4.5	Transcribe from Shorthand Notes. . . . .	91	90	1	82	0	9	3560	340 $\frac{1}{2}$	2300
22a	6	Operate Calculating Machine--Adding. . . . .	90	84	6	66	12	12	2260	165	1413
20	7	Check Bills and Invoices . . . . .	86	75	11	14	40	32	1707	150	2230
19	8	Compose Letters for Employer . . . . .	84	82	2	30	16	38	1590	147	2087
70	9	Fold Letters and Insert in Envelopes . . . . .	83	62	21	40	25	18	300	29 $\frac{1}{2}$	1437
72	10	Wait on Customers. . . . .	82	77	5	7	49	26	1780	135 $\frac{3}{4}$	1231
23	11.5	Order Supplies for Office. . . . .	80	56	24	8	58	14	800	29 $\frac{1}{2}$	1568
1	11.5	Make Journal Entries . . . . .	80	78	2	42	5	33	1890	131	1664
2	13	Keep General Ledger. . . . .	79	77	2	42	5	32	1915	107 $\frac{1}{2}$	1571



Day No.	Bank	Miles	Frequency	Important	Unimportant	Local	Top	School-Top	Per Day Minutes	Per Week Hours	Per Year Weeks
3	12	Keep records of travel.	12	12	12	12	12	12	12	12	12
1	11	Make permanent entries.	8	12	12	12	12	12	12	12	12
2	11	Order supplies for office.	8	12	12	12	12	12	12	12	12
3	10	Write on characters.	12	12	12	12	12	12	12	12	12
4	9	Write letters and insert in envelopes.	12	12	12	12	12	12	12	12	12
5	8	Compose letters for envelopes.	12	12	12	12	12	12	12	12	12
6	7	Check bills and invoices.	12	12	12	12	12	12	12	12	12
7	6	Observe calculating machine--adding.	12	12	12	12	12	12	12	12	12
8	5	Transcribe from shorthand notes.	12	12	12	12	12	12	12	12	12
9	4	Take Dictation.	12	12	12	12	12	12	12	12	12
10	3	Make Bank Deposit.	12	12	12	12	12	12	12	12	12
11	2	Writing.	12	12	12	12	12	12	12	12	12
12	1	Personal Telephone.	12	12	12	12	12	12	12	12	12

TABLE XIII. EMERGENCY WORKING OF MILES BY EMPLOYEES



TABLE XIII. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
26	14	Figure Pay Rolls. . . . .	77	76	1	17	36	24	5385	172 $\frac{3}{4}$	1866
25	15	Make Out Receipts . . . . .	76	57	19	30	24	22	380	32	1171
37	16	Send Out Collection Letters . . . . .	74	67	7	17	27	30	2530	89 $\frac{1}{2}$	674
34	17.5	Pay Bills . . . . .	72	62	10	9	43	20	1035	56 $\frac{1}{4}$	1171
73	17.5	Hear Complaints in Office and Over Telephone. . . . .	72	65	7	2	51	19	450	54 $\frac{1}{4}$	820
8	19	Keep Accounts Receivable Ledger . . . . .	70	70	0	29	9	32	1375	93	1302
7	20.5	Keep Accounts Payable Ledger. . . . .	64	63	1	28	8	28	885	94 $\frac{1}{2}$	1105
75	20.5	Keep Employer Reminded of Engagements . . . . .	64	60	4	4	49	11	225	20 $\frac{3}{4}$	728
9	23.5	Take Trial Balance. . . . .	63	62	1	33	3	27	2185	68 $\frac{1}{2}$	569
68	23.5	Read, Sort, and Classify Mail . . . . .	63	58	5	4	49	10	115	11 $\frac{1}{2}$	1387
4	23.5	Balance Cash Daily. . . . .	63	63	0	26	10	27	615	56 $\frac{1}{2}$	1390
33	23.5	Make Out Social Security and Unemployment Reports. . . . .	63	60	3	17	25	21	1950	61 $\frac{1}{2}$	288





TABLE XIII. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
71	26	Take Mail to Post Office. . . . .	61	38	23	2	55	4	200	21	1017
69	27.5	Address Envelopes, Packing Slips. . . . .	58	39	19	23	22	13	295	29½	1237
74	27.5	Make Engagements and Appointments . . . . .	58	55	3	4	36	18	395	34½	783
49	29	Clean Files . . . . .	55	44	11	6	34	15	590	40¼	546
5	30	Keep Sales Ledger . . . . .	54	52	2	25	6	23	696	78½	1092
52	32.5	Type Letters from Copy. . . . .	53	41	12	34	8	11	400	43	925
35	32.5	Check Credits on Customers. . . . .	53	49	4	6	34	13	590	28½	694
3	32.5	Keep Petty Cash Book. . . . .	53	47	6	21	12	20	538	49	1200
27	32.5	Prepare Pay Roll Report . . . . .	53	51	2	8	21	24	1535	36¾	1300
21	35.5	Record Invoices . . . . .	52	45	7	10	23	19	955	63	1100
6	35.5	Keep Purchases Ledger . . . . .	52	51	1	23	6	23	545	83	899
11	37.5	Prepare Balance Sheet . . . . .	48	47	1	28	3	17	1325	69	418





TABLE XIII. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
42	37.5	Make List of Employees' Annual Wages, Send Copy to Government, and Give Each Employee a Copy of His Report. . . . .	48	42	6	6	33	9	1245	44 $\frac{3}{4}$	16
43	39.5	Order Merchandise . . . . .	46	40	6	5	32	9	1020	69 $\frac{3}{4}$	1046
12	39.5	Keep Expense Accounts . . . . .	46	53	3	19	8	19	465	30	560
41	41.5	Cash Money Drawer and Clear Cash Register	43	39	4	4	26	13	470	41 $\frac{3}{4}$	970
40	41.5	Prepare Income Tax Returns. . . . .	43	41	2	14	8	21	2160	36	18
54	43.5	Type Bills, Invoices. . . . .	42	40	2	13	17	12	1405	109 $\frac{1}{4}$	863
10	43.5	Prepare Profit and Loss Statement . . . . .	42	42	0	23	2	17	1095	26	250
22c	45	Operate Calculating Machine-- <u>Multiplying</u> .	41	39	2	30	6	5	2160	116 $\frac{1}{2}$	898
36	46.5	Make Out Notes. . . . .	40	36	4	17	12	11	345	22 $\frac{3}{4}$	446
67	46.5	Get Mail at Post Office . . . . .	40	22	18	2	35	3	115	11 $\frac{1}{2}$	611
22b	48	Operate Calculating Machine-- <u>Subtracting</u> .	39	37	2	30	3	6	1265	83	758
38	49	Record New Employees. . . . .	38	31	7	4	29	5	340	9 $\frac{1}{4}$	440



Index No.	Index	Frequency	Important	Unimportant	Loaded	Top	Bottom-Top	Per Day Minutes	Per Week Hours	Per Year Weeks
43	43	40	45	35	3	20	2	730	22	48
44	44	40	55	30	3	3	2	77	77 1/2	815
45	45	40	28	4	11	13	17	248	22 1/2	440
46	46	41	28	3	20	8	2	3100	176 1/2	228
47	47	43	45	0	32	3	14	708	32	350
48	48	43	40	3	12	14	15	1408	108 1/2	882
49	49	42	41	3	14	8	57	3100	22	18
50	50	42	33	4	4	38	12	410	41 1/2	210
51	51	40	22	2	18	8	18	408	20	290
52	52	40	40	8	8	25	8	1080	88 1/2	1048
53	53	40	45	8	8	22	3	1302	44 1/2	18

INDEX

INDEX NO. 11 (continued) FREQUENCY INDEX OF INDEXES BY INDEXES

TABLE XIII. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
53	50	Type Orders from Copy . . . . .	35	31	4	16	12	7	470	41 $\frac{1}{4}$	1046
39	51	Make Out Separation Notices . . . . .	30	22	8	1	25	4	175	12 $\frac{1}{4}$	494
46	52.5	Indexing. . . . .	29	22	7	8	8	13	260	18 $\frac{1}{2}$	461
65	52.5	Operate Mimeograph. . . . .	29	26	3	21	1	7	675	43 $\frac{1}{2}$	321
60	54.5	Cut Stencils. . . . .	27	22	5	21	2	4	155	9 $\frac{3}{4}$	217
55	54.5	Type Checks . . . . .	27	25	2	8	14	5	525	17 $\frac{1}{4}$	384
22d	56	Operate Calculating Machine-- <u>Dividing</u> . .	23	22	1	14	3	6	160	15	256
29	57	Look Up Dates for Shipping Merchandise. .	22	14	8	2	18	2	235	18	557
28	58	Assemble Orders and Attach Bills of Lading . . . . .	20	12	8	3	13	4	490	46 $\frac{1}{2}$	612
13	59.5	Post Salesmen's Commissions . . . . .	19	18	1	3	7	9	390	17 $\frac{1}{2}$	360
31	59.5	Receive and Record Cash of Delivery Truck Drivers. . . . .	19	18	4	1	15	3	685	66 $\frac{1}{2}$	408
50	61.5	Operate Addressograph . . . . .	17	14	3	7	7	3	675	31	219





TABLE XIII. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYEES

Atty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
59	61.5	Type Minutes of Meetings. . . . .	17	11	6	6	10	1	135	2½	107
58	63.5	Type Legal Documents from Copy. . . . .	16	14	2	4	5	7	130	8	232
17	63.5	Type from Dictating Machine . . . . .	16	16	0	9	2	5	285	42	204
104	65	Monthly Reconciliation of Check Book. . . . .	13	11	2	2	1	10	90	1½	24
57	66	Type Articles, Manuscripts from Copy. . . . .	9	9	0	0	5	4	70	5	140
81	67	Post Checks and Deposits. . . . .	8	8	0	0	7	1	15	1½	52
62	69.5	Type Medical Records. . . . .	7	6	1	1	3	3	25	2½	102
18	69.5	Shave Dictaphone Records. . . . .	7	5	2	3	3	1	15	1½	50
121	69.5	Operate Adding Machine. . . . .	7	7	0	5	0	2	240	22	156
32	73.5	Assemble Case Records . . . . .	6	5	1	0	4	2	--	--	--
30	73.5	Arrange and Post Checks from Clearing House. . . . .	6	6	0	0	5	1	15	1½	52
82	73.5	Prepare Statements of Checking Accounts . . . . .	6	5	1	0	6	0	--	--	--
83	73.5	Figure Interest on Savings Accounts . . . . .	6	5	1	1	5	0	120	30	13





TABLE XIII. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
84	73.5	Prepare Club Cards for Following Day. . .	6	4	2	1	5	0	65	6 1/2	104
47	78.5	Look Up Records of Different Estates. . .	5	5	0	0	5	0	100	10	153
56	78.5	Type Case Histories . . . . .	5	5	0	0	3	2	40	4	104
78	78.5	Figure Service Charges on Checking Accounts . . . . .	5	4	1	0	4	1	--	--	--
86	78.5	Balance Club Cash . . . . .	5	5	0	1	4	0	45	4 1/2	104
237	78.5	Take Inventory. . . . .	5	5	0	0	5	0	180	3	1
30	86.5	Put Up Paper Samples. . . . .	4	3	1	0	4	0	30	3	100
44	86.5	Assemble Slips Recording Merchandise Sent Out on Approval. . . . .	4	3	1	0	4	0	45	2	104
63	86.5	Type Registration Cards . . . . .	4	4	0	1	3	0	20	2 1/4	102
66	86.5	Operate Hectograph. . . . .	4	2	2	1	1	2	175	5 1/2	74
76	86.5	Consultation in Regard to Settling Estates	4	4	0	0	4	0	150	8	113
77	86.5	Arrange Checks for Clearing House . . . .	4	4	0	0	3	1	5	1 1/2	52





TABLE XIII. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
79	86.5	Post Service Charges on Ledger Cards. . .	4	4	0	1	3	0	--	--	--
85	86.5	Draw Club Cards for Posting . . . . .	4	4	0	0	4	0	95	9½	104
87	86.5	Post Ledger Cards of Clubs. . . . .	4	4	0	0	4	0	95	10½	104
115	86.5	Prepare Monthly Bills from Ledger . . . .	4	4	0	0	4	0	240	24	12
116	86.5	Mail Monthly Statements . . . . .	4	4	0	0	4	0	74	8	12
88	95.5	Write Daily Statement . . . . .	3	3	0	0	3	0	15	1½	52
118	95.5	Type Profit and Loss Statement. . . . .	3	3	0	0	0	3	240	4	12
120	95.5	Type Balance Sheet. . . . .	3	3	0	0	0	3	240	4	12
150	95.5	Make Out All Invoices . . . . .	3	3	0	0	0	3	420	48	126
162	95.5	Correct Prices on Orders and Make Extensions . . . . .	3	3	0	0	3	0	150	12½	104
165	95.5	Transcribe Minutes of Meetings from Shorthand Notes. . . . .	3	3	0	0	3	0	--	--	--
166	95.9	Take Down Minutes of Meetings in Shorthand	3	3	0	0	3	0	--	--	--





TABLE XIII. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
61	101.5	Type Receiving Report on Car of Paper . .	2	2	0	0	2	0	--	--	--
130	101.5	Keep Perpetual Inventory. . . . .	2	2	0	0	2	0	--	--	--
227	101.5	Keep Cash Received Book . . . . .	2	2	0	0	0	2	60	6	52
228	101.5	Keep Cash Paid Out Book . . . . .	2	2	0	0	0	2	30	3	52
229	101.5	Post Cash Received and Paid Books . . . .	2	2	0	0	0	2	60	6	52
45	106.5	Credit Checks Received for Settling Estates. . . . .	1	1	0	0	1	0	15	1 1/2	50
51	106.5	Record Probate Records for Settling Estates. . . . .	1	1	0	0	1	0	60	5	50
64	106.5	Type Court Order on Estate. . . . .	1	1	0	0	1	0	60	1	50
99	106.5	Prepare Invoices from Packing Slips, Orders, etc. . . . .	1	1	0	0	0	1	60	6	52
131	106.5	Figure Inventory Costs. . . . .	1	1	0	0	1	0	--	--	--
248	106.5	Keep Cash Book. . . . .	1	1	0	1	0	0	15	1 1/2	50



Day No.	Hour	Activity	Teacher	Student	Unimportant	Important	Unimportant	Important	School	Not-School	Per Day Minutes	Per Week Hours	Per Year Weeks
124	1:00-2:00	Keep class book.	1	1	1	1	0	0	1	0	12	1 1/2	20
125	2:00-3:00	Write unimportant copy.	1	1	1	1	0	0	1	0	--	--	--
126	3:00-4:00	Class work.	1	1	1	1	0	0	0	1	60	0	40
127	4:00-5:00	Write unimportant from looking copy.	1	1	1	1	0	0	0	0	60	1	20
128	5:00-6:00	Write copy on paper.	1	1	1	1	0	0	0	0	60	2	40
129	6:00-7:00	Keep class book for getting unimportant.	1	1	1	1	0	0	0	0	60	2	40
130	7:00-8:00	Write copy received for getting unimportant.	1	1	1	1	0	0	0	0	60	2 1/2	20
131	8:00-9:00	Keep class book for getting unimportant.	2	2	2	2	0	0	0	0	60	0	20
132	9:00-10:00	Keep class book for getting unimportant.	2	2	2	2	0	0	0	0	60	0	20
133	10:00-11:00	Keep class book for getting unimportant.	2	2	2	2	0	0	0	0	60	0	20
134	11:00-12:00	Keep class book for getting unimportant.	2	2	2	2	0	0	0	0	60	0	20
135	12:00-1:00	Keep class book for getting unimportant.	2	2	2	2	0	0	0	0	60	0	20
136	1:00-2:00	Keep class book for getting unimportant.	2	2	2	2	0	0	0	0	60	0	20
137	2:00-3:00	Keep class book for getting unimportant.	2	2	2	2	0	0	0	0	60	0	20
138	3:00-4:00	Keep class book for getting unimportant.	2	2	2	2	0	0	0	0	60	0	20
139	4:00-5:00	Keep class book for getting unimportant.	2	2	2	2	0	0	0	0	60	0	20
140	5:00-6:00	Keep class book for getting unimportant.	2	2	2	2	0	0	0	0	60	0	20

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"Filing" ranks high as to frequency of performance--105 out of 168 performing the duty. In the small offices where the force is not large, all the employees help with the filing and all must be acquainted with the particular system in use in their office. This also accounts for the large amount of time spent on the duty--2,360 minutes per day.

It was surprising to find "Compose Letters for Employer" ranking 8th in the list, with 84 out of the 168 performing the duty. It was considered important by 82 of the 84; 30 felt it should be taught in school, 16 on the job, and 38 in school and on the job. The duty "Wait on Customers" ranks quite high--10th from the top. This includes waiting on customers in retail stores--actual selling--meeting clients and other people who come into law, insurance, municipal, school, and other offices. In many cases the office worker must take the place of the employer when he is out, and handle those people who come into the office. Out of the 168 employees, 82 performed this duty, with 77 considering it important. Forty-six thought it should be taught on the job, 26 in school and on the job, and 7 in school.

The duty ranking highest as to number of minutes per day--5,385--was "Figure Pay Rolls." The number of hours per week, however, was only  $173 \frac{3}{4}$ , and total weeks per year, 1,866. The reason for this is that the pay roll



"filling" ranks high as to frequency of performance--108 out of 108 performing the duty. In the small office where the force is not large, all the employees help with the filling and all must be acquainted with the particular system in use in their office. This also accounts for the large amount of time spent on the duty--2,380 minutes per day.

It was surprising to find "Company Letters for Employer" ranking 8th in the list, with 84 out of the 108 performing the duty. It was considered important by 32 of the 84; 30 felt it should be taught in school, 18 on the job, and 38 in school and on the job. The duty

"Wait on Customers" ranks quite high--10th from the top. This includes waiting on customers in retail stores--actual selling--meeting clients and other people who come into law, insurance, municipal, school, and other offices. In many cases the office worker must take the place of the employer when he is out, and handle those people who come into the office. Out of the 108 employees, 32 performed this duty, with 77 considering it important. Forty-six thought it should be taught

on the job, 36 in school and on the job, and 7 in school. The duty ranking highest as to number of minutes per day--3,388--was "Signify Pay Roll." The number of hours per week, however, was only 175 3/4, and total weeks per year, 1,388. The reason for this is that the pay roll

is not figured every day in the week, so that the time spent on the duty would be the same for the day as for the week, whereas on a duty like "Take Dictation" that is performed daily, the total hours per week cumulate.

An attempt was made to find out just for which of the processes the calculating machine was most frequently used. The data collected reveal that "Adding" ranked sixth, with 90 out of 168 performing the duty. The next process in order of frequency is "Multiplying" which ranked 45th, with 41 performing it and "Subtracting" was close, ranking 48th, with 39 performing it. "Dividing" ranked 56th, with only 23 using the calculating machine for this process.

It is evident from this table, Pages 44-52, that the clerical duties such as "Make Bank Deposit," "Check Bills and Invoices," "Order Supplies for Office," "Figure Pay Rolls," "Send Out Collection Letters," etc., are quite predominant. A great deal of the time of these office workers is spent in doing some sort of clerical work in connection with keeping records.

The bookkeeping duties which involve the bookkeeping cycle processes, such as "Make Journal Entries," "Keep General Ledger," "Take Trial Balance," etc., rank predominantly high as to frequency of performance and amount of time spent on each duty. On some of these



is not figured every day in the week, so that the time spent on the duty would be the same for the days for the week, whereas on a duty like "Take Dictation" that is performed daily, the total hours per week cumulative. An attempt was made to find out just for which of the processes the calculating machine was most frequently used. The data collected reveal that "Adding" ranked sixth, with 90 out of 153 performing the duty. The next process in order of frequency is "Multiplying" which ranked 43th, with 41 performing it and "Subtracting" close, ranking 43th, with 39 performing it. "Dividing" ranked 56th, with only 23 using the calculating machine for this process. It is evident from this table, pages 44-53, that the clerical duties such as "Make Bank Deposit," "Check Bills and Invoices," "Order Supplies for Office," "Pay Roll," "Send Out Collection Letters," etc., are quite predominant. A great deal of the time of these office workers is spent in doing some sort of clerical work in connection with keeping records. The bookkeeping duties which involve the bookkeeping cycle processes, such as "Make Journal Entries," "General Ledger," "Take Trial Balance," etc., rank predominantly high as to frequency of performance and amount of time spent on each duty. On some of these

duties--"Make Journal Entries" and "Keep General Ledger"--the daily and weekly time spent on each is high because they are performed daily. On others, such as "Take Trial Balance," and "Prepare Balance Sheet," the daily time is high, but the weekly time is not because these duties are not performed daily. They are performed by some once a month, others every 3 or 6 months, and others once a year.

The first duty from the "Type from Copy" duties to appear on the Table is "Type Letters from Copy." It is ranked as 31, with 53 performing the duty. The next one, ranked as 43, is "Type Bills and Invoices," with 42 performing it. Typing from copy does not rank anywhere near as high as "Taking Dictation" and "Transcribing from Shorthand Notes" as to frequency and as to the amount of time spent on each duty.

Use of the dictaphone is quite negligible as revealed by this study. It is ranked as 64 on the list, with only 16 out of 168 using the machine.

Some of the duties selected from the 170 additional duties given by the employees and included in this Table are: "Monthly Reconciliation of Check Book," with 13 performing the duty; "Operate Adding Machine"; "Take Inventory"; "Prepare Monthly Bills from Ledger"; "Type Profit and Loss Statement"; "Type Balance Sheet." These duties were included in this table because they



duties--"Make Journal Entries" and "Keep General Ledger"--the daily and weekly time spent on each is high because they are performed daily. On others, such as "Take Trial Balance," and "Prepare Balance Sheet," the daily time is high, but the weekly time is not because these duties are not performed daily. They are performed by some once a month, others every 3 or 6 months, and others once a year.

The first duty from the "Type from Copy" duties to appear on the table is "Type Letters from Copy." It is ranked as 31, with 53 performing the duty. The next ranked as 43, is "Type Bills and Invoices," with 43 performing it. Typing from copy does not rank anywhere near as high as "Taking Dictation" and "Transcribing from Shorthand Notes" as to frequency and as to the amount of time spent on each duty.

Use of the dictophone is quite negligible as revealed by this study. It is ranked as 84 on the list, with only 16 out of 188 using the machine.

Some of the duties selected from the 170 additional duties given by the employees and included in this table are: "Monthly Reconciliation of Check Book," with 13 performing the duty; "Operate Adding Machine"; "Take Inventory"; "Prepare Monthly Bills from Ledger"; "Type Profit and Loss Statement"; "Type Balance Sheet." These duties were included in this table because they

appear to be common to more than one type of business, and in some cases because of their frequency of performance.

The duties toward the end of Table XIII, Pages 44-52, are to some extent those which pertain to certain types of businesses, such as banks and probate work, and those which are performed by very few people.

#### Analysis of Duties by Employers

The check lists returned by 78 out of the 116 employers (67%) were tabulated and the results are shown in Table XIV, Pages 57-64.

#### Findings

The duties ranked highest by the employers are "Take Dictation" and "Transcribe from Shorthand Notes." Out of the 78 replies, 71 require their employees to be able to perform these duties, 62 claiming they should be taught in school, none on the job, and 9 in school and on the job.

A considerable number, 62, also require their employees to be able to figure pay rolls, 10 claiming it should be taught in school, 27 on the job, and 25 in school and on the job. This duty is ranked third by employers, whereas employees rank it 14th. This seems to indicate one of two things: (1) although employers



appear to be common to more than one type of business, and in some cases because of their frequency of performance.

The duties toward the end of Table XIII, Pages 44-45, are to some extent those which pertain to certain types of businesses, such as banks and probate work, and those which are performed by very few people.

#### Analysis of Duties by Employers

The check lists returned by 76 out of the 118 employers (64%) were tabulated and the results are shown in Table XIV, Pages 57-64.

#### Findings

The duties ranked highest by the employers are "Take Dictation" and "Transcribe from shorthand notes." Out of the 76 replies, 71 require their employees to be able to perform these duties, 62 claiming they should be taught in school, none on the job, and 9 in school and on the job.

A considerable number, 62, also require their employees to be able to figure pay rolls, 10 claiming it should be taught in school, 27 on the job, and 25 in school and on the job. This duty is ranked third by employers, whereas employees rank it 14th. This seems to indicate one of two things: (1) although employers

TABLE XIV. FREQUENCY RANKING OF DUTIES BY EMPLOYERS

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job
15	1.5	Take Dictation. . . . .	71	70	1	62	0	9
16	1.5	Transcribe from Shorthand Notes . . . . .	71	70	1	62	0	9
26	3.5	Figure Pay Rolls. . . . .	62	59	3	10	27	25
48	3.5	Answer Telephone. . . . .	62	55	7	17	23	22
2	5	Keep General Ledger . . . . .	61	59	2	31	5	25
22	6	Operate Calculating Machine . . . . .	60	55	5	44	5	11
73	8.5	Hear Complaints in Office and Over Telephone. . . . .	59	55	4	9	30	20
14	8.5	Filing. . . . .	59	51	8	21	12	26
24	8.5	Make Bank Deposit . . . . .	59	55	6	19	16	24
33	8.5	Make Out Social Security and Unemployment Reports . . . . .	59	56	3	18	17	24
74	12.5	Make Engagements and Appointments . . . . .	58	54	4	13	27	18
25	12.5	Make Out Receipts . . . . .	58	48	10	26	14	18
70	12.5	Fold Letters and Insert in Envelopes. . . . .	58	33	25	26	20	12





TABLE XIV. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYERS

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job
75	14	Keep Employer Reminded of Engagements . . . . .	57	52	5	9	30	18
8	15.5	Keep Accounts Receivable Ledger . . . . .	56	56	0	22	5	29
23	15.5	Order Supplies for Office . . . . .	56	38	18	6	37	13
20	18.5	Check Bills and Invoices. . . . .	55	49	6	13	18	24
4	18.5	Balance Cash Daily. . . . .	55	53	2	21	8	26
37	18.5	Send Out Collection Letters . . . . .	55	48	7	12	14	29
27	20.5	Prepare Pay Roll Report . . . . .	54	52	2	13	17	24
42	20.5	Make List of Employees' Annual Wages, Send Copy to Government, and Give Each Employee a Copy of His Report . . . . .	54	51	3	13	25	16
68	20.5	Read, Sort, and Classify Mail . . . . .	54	34	20	9	35	10
1	24.5	Make Journal Entries. . . . .	52	52	0	30	0	22
3	24.5	Keep Petty Cash Book. . . . .	52	48	4	24	5	23
7	24.5	Keep Accounts Payable Ledger. . . . .	52	50	2	24	5	23





TABLE XIV. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYERS

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job
9	24.5	Take Trial Balance . . . . .	52	50	2	26	2	24
52	27.5	Type Letters from Copy . . . . .	51	43	8	41	3	7
71	27.5	Take Mail to Post Office . . . . .	51	20	31	6	41	4
69	28	Address Envelopes, Packing Slips . . . . .	50	34	16	16	19	14
21	30.5	Record Invoices. . . . .	49	44	5	14	15	20
19	30.5	Compose Letters for Employer . . . . .	49	37	12	14	15	20
72	32.5	Wait on Customers. . . . .	48	46	2	8	25	15
11	32.5	Prepare Balance Sheet. . . . .	48	47	1	20	4	24
12	34	Keep Expense Accounts. . . . .	47	45	2	20	7	20
5	35.5	Keep Sales Ledger. . . . .	46	44	2	15	7	24
6	35.5	Keep Purchases Ledger. . . . .	46	44	2	15	7	24
35	37.5	Check Credits on Customers . . . . .	45	52	3	8	24	13
34	37.5	Pay Bills. . . . .	45	38	7	7	20	18



Day No.	Rate	Index	Frequency	Important	Unimportant	Looked	Not Looked
22	21.2	Check Office on Correspondence	42	25	2	8	12
23	22.2	Keep Business Ledger	42	44	5	12	54
24	22.2	Keep Sales Ledger	42	44	5	12	54
25	24	Keep Expense Accounts	42	42	8	30	30
26	25.2	Prepare Balance Sheet	42	44	1	30	34
27	25.2	Write on Correspondence	42	42	3	8	12
28	26.2	Compose Letters for Employer	42	31	12	14	30
29	26.2	Record Invoices	42	44	2	14	30
30	28	Address Envelopes, Envelope Address	20	24	12	12	14
31	21.2	Take Mail to Post Office	21	30	21	8	4
32	21.2	Take Letters from Post Office	21	24	8	14	4
33	24.2	Take Mail Balance	21	20	3	30	42

TABLE VII. (Continued) MONTHLY INDEX OF INDEXES BY CATEGORY

TABLE XIV. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYERS

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job
67	39.5	Get Mail at Post Office. . . . .	43	15	28	3	38	2
10	39.5	Prepare Profit and Loss Statement. . . . .	43	41	2	18	1	24
49	41	Clean Files. . . . .	41	26	15	9	22	10
53	42	Type Orders from Copy. . . . .	37	34	3	24	1	12
36	45.5	Make Out Notes . . . . .	36	26	10	8	11	17
46	45.5	Indexing . . . . .	36	31	5	20	3	13
54	45.5	Type Bills, Invoices . . . . .	36	31	5	21	1	14
55	45.5	Type Checks. . . . .	36	32	4	17	5	14
40	45.5	Prepare Income Tax Returns . . . . .	36	33	3	11	10	15
38	48	Record New Employees . . . . .	34	25	9	5	20	9
41	49	Cash Money Drawer and Clear Cash Register. . . . .	32	31	1	5	16	11
59	50.5	Type Minutes of Meetings from Copy . . . . .	30	27	3	12	7	11
60	50.5	Cut Stencils . . . . .	30	19	11	24	1	5





TABLE XIV. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYERS

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job
65	52	Operate Mimeograph . . . . .	29	20	9	21	1	7
58	53	Type Legal Documents from Copy . . . . .	26	20	6	13	6	7
43	54	Order Merchandise . . . . .	25	23	2	4	14	7
39	55	Make Out Separation Notices . . . . .	22	14	8	1	13	8
28	56.5	Assemble Orders and Attach Bills of Lading . . . . .	21	17	4	4	9	8
57	56.5	Type Articles, Manuscripts from Copy . . . . .	21	16	5	12	4	5
17	58	Type from Dictating Machine . . . . .	20	18	2	16	2	2
66	59	Operate Hectograph . . . . .	18	9	9	11	4	3
29	60	Look Up Dates for Shipping Merchandise . . . . .	17	14	3	2	11	4
13	61	Post Salesmen's Commissions . . . . .	16	15	1	6	1	9
31	62.5	Receive and Record Cash of Delivery Truck Drivers . . . . .	14	14	0	1	9	4
50	62.5	Operate Addressograph . . . . .	14	9	5	6	5	3
18	64	Shave Dictaphone Records . . . . .	9	5	4	7	2	0





TABLE XIV. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYERS

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job
32	65.5	Assemble Case Records. . . . .	8	8	0	4	2	2
44	65.5	Assemble Slips Recording Merchandise Sent Out on Approval. . . . .	8	7	1	1	7	0
47	68.5	Look Up Records of Different Estates . . . . .	7	6	1	0	4	3
56	68.5	Type Case Histories. . . . .	7	7	0	3	2	2
63	68.5	Type Registration Cards. . . . .	7	7	0	2	1	4
62	70	Type Medical Records . . . . .	6	6	0	2	2	2
64	71	Type Court Order on Estate . . . . .	5	3	2	2	3	0
45	77.5	Credit Checks Received for Settling Estates. . . . .	4	2	2	1	1	2
77	77.5	Arrange Checks for Clearing House. . . . .	4	4	0	0	4	0
79	77.5	Post Service Charges on Ledger Cards . . . . .	4	4	0	0	4	0
81	77.5	Post Checks and Deposits . . . . .	4	4	0	0	3	1
82	77.5	Prepare Statements of Checking Accounts. . . . .	4	3	1	0	3	1
83	77.5	Figure Interest on Savings Accounts. . . . .	4	4	0	0	1	3



Doc. No.	Bank	DATE	Frequency	Important	Unimportant	School	Job	School-Job
25	11.2	Exhibit Statement of Checking Accounts.	1	2	1	0	0	1
26	11.2	Post Checks and Receipts.	1	4	0	0	0	1
27	11.2	Post Service Checks on Federal Office.	1	1	0	0	0	0
28	11.2	Various Checks for Cleaning House.	1	1	0	0	1	0
29	11.2	Check Checks received for getting papers.	1	2	0	1	1	0
30	11	Like bank order on National City.	1	2	0	0	0	0
31	11	Like National City.	1	0	0	0	0	0
32	11.2	Like Registration fees.	1	1	0	0	1	0
33	11.2	Like Case History.	1	1	0	0	0	0
34	11.2	Like up records of different parties.	1	2	1	0	0	0
35	11.2	Example of the following: Sent out on approval.	1	1	1	1	1	0
36	11.2	Example Case Records.	1	0	0	0	0	0

WHITE LIA. (Continued) SUMMARY MAKING OF WHITE LIA. SUMMARY

TABLE XIV. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYERS

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job
84	77.5	Prepare Club Cards for Following Day . . . . .	4	3	1	0	4	0
85	77.5	Draw Club Cards for Posting. . . . .	4	3	1	0	4	0
86	77.5	Balance Club Cash. . . . .	4	4	0	0	3	1
87	77.5	Post Ledger Cards of Clubs . . . . .	4	4	0	0	3	1
78	77.5	Figure Service Charges on Checking Accounts. . . . .	4	3	1	0	4	0
88	77.5	Write Daily Statement. . . . .	4	3	1	0	3	1
30	84.5	Put Up Paper Samples . . . . .	3	1	2	0	3	0
80	84.5	Arrange and Post Checks from Clearing House. . . . .	3	3	0	0	3	0
76	86.5	Consultation in Regard to Settling Estates . . . . .	2	2	0	0	2	0
114	86.5	Good Penmanship. . . . .	2	2	0	2	0	0
51	90.5	Record Probate Records for Settling Estates. . . . .	1	1	0	0	1	0
61	90.5	Type Receiving Report on Car of Paper. . . . .	1	1	0	0	1	0
90	90.5	Understand Why Stock Turnover is Figured . . . . .	1	1	0	1	0	0



Day No.	Bank	Duties	Frequency	Important	Unimportant	Loades	dol	dol-loades
80	30.2	Understanding and Stock Transfer in England	1	1	0	1	0	0
81	30.3	Type Recording Report on Carl of Paper	1	1	0	0	1	0
82	30.2	Record Expense Records for Settling Matters	1	1	0	0	1	0
83	30.3	Good Remittance	2	2	0	2	0	0
84	30.3	Consolidation in regard to Settling Matters	2	2	0	0	2	0
85	30.4	Arrange and Post Checks from Clearing House	2	2	0	0	2	0
86	30.2	Put up Paper Samples	2	1	2	0	2	0
87	30.7	Write Daily Statement	4	2	1	0	2	1
88	30.7	Write Service Charges on Checking Accounts	4	2	1	0	4	0
89	30.7	Post Ledger Cards of Cords	4	4	0	0	3	1
90	30.7	Balance Card Card	4	4	0	0	3	1
91	30.7	Draw Card Cards for Posting	4	3	1	0	4	0
92	30.7	Prepare Card Cards for Posting	4	2	1	0	4	0

TABLE VIIA. (continued) FREQUENCY RATING OF DUTIES BY EMPLOYEES

TABLE XIV. (Continued) FREQUENCY RANKING OF DUTIES BY EMPLOYERS

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job
91	90.5	Interpret Statement of Expenses. . . . .	1	1	0	1	0	0
92	90.5	Prepare Invoices from Packing Records. . . . .	1	1	0	0	1	0



TABLE III  
 SUMMARY OF RESULTS OF THE 1954-55 CENSUS (continued) - VII

Age group	Sex	Married					Total	Total
		Male	Female	Both sexes	Male	Female		
15-19	Male	1	1	2	1	1	2	2
20-24	Male	1	1	2	1	1	2	2
25-29	Male	1	1	2	1	1	2	2
30-34	Male	1	1	2	1	1	2	2
35-39	Male	1	1	2	1	1	2	2
40-44	Male	1	1	2	1	1	2	2
45-49	Male	1	1	2	1	1	2	2
50-54	Male	1	1	2	1	1	2	2
55-59	Male	1	1	2	1	1	2	2
60-64	Male	1	1	2	1	1	2	2
65-69	Male	1	1	2	1	1	2	2
70-74	Male	1	1	2	1	1	2	2
75-79	Male	1	1	2	1	1	2	2
80-84	Male	1	1	2	1	1	2	2
85-89	Male	1	1	2	1	1	2	2
90-94	Male	1	1	2	1	1	2	2
95-99	Male	1	1	2	1	1	2	2
100+	Male	1	1	2	1	1	2	2
Total	Male	1	1	2	1	1	2	2
Total	Female	1	1	2	1	1	2	2

expect their office workers to be able to perform this duty, office workers do not perform it; or (2) only one of the office force has charge of the pay rolls, thus making the frequency of performance by employees lower than the frequency of mention by employers.

As was the case with the employees' ranking of the duties, the clerical duties are also rather predominant in the high ranking duties by employers. "Operate Calculating Machine" is ranked 6th by employers. They did not check each individual process under "Operate Calculating Machine," but merely checked that item as one of the duties they expected their office workers to be able to do. It may be noted that the employees ranked "Adding" sixth, the same rank given by employers to "Operate Calculating Machine."

The bookkeeping duties--"Make Journal Entries," "Keep General Ledger," "Take Trial Balance," etc., rank similar to the employees' frequency of performance ranking. Although the ranking of each duty by each group does not coincide exactly, all the duties are within the rank of 61 by both groups. The last bookkeeping duty, "Post Salesmen's Commissions," is ranked 59.5 by employees and 61 by employers.

Although the employers do not rank "Compose Letters for Employer" as high as the employees, the per cent of





of those checking it in both cases in regard to importance is very high. The employers rank it 31, with 37 out of 49 considering it important, and the employees, 8, with 82 out of 84 considering it important.

"Filing" is given a rank of 9 by employers, while the employees' frequency of performance ranking places it second. The per cent ranking the duty as to importance in both cases, however, is high. Of the employers, 51 out of 59 rank it as being important, and of the employees, 98 out of 105.

The "Type from Copy" and "Type from Dictating Machine" duties are ranked quite similar in both cases. "Type Letters from Copy" is ranked 27 by the 51 employers and 31 by 53 employees. "Type Orders" is next by 37 employers--rank of 42; whereas 35 employees' rankings place "Type Bills and Invoices" next--rank of 43. Employees' rankings (42) place "Type Orders" 50, and 36 employers' rankings place "Type Bills and Invoices" 45. "Type from Dictating Machine" is ranked 58 by 20 employers and 64 by 16 employees. There is not much discrepancy between the rankings of the two groups.

The employers added only 24 new duties they expected their employees to be able to perform. Each duty was suggested by only one employer, with the exception of one, "Good Penmanship," which was suggested by two.





Only one out of all the employers who made returns desired his employees to be able to interpret bookkeeping records. He added "Understand Why Stock Turnover is Figured" and "Interpret Statement of Expenses." Although these are not distinctly office duties, they were thought to be of considerable importance because they involve the interpretive side of record keeping. It is essential to be able to interpret bookkeeping records in addition to making them. "Good Penmanship" also is not a distinct office duty. However, it is important for an office worker who does any amount of handwriting to be able to write legibly. The predominance of clerical duties among office workers concerned in this study must call for a considerable amount of handwriting.

Its inclusion, therefore, in this table is justifiable in spite of its infrequency of mention. The fourth duty "Prepare Invoices from Packing Records" was added because it appeared to be common to any manufacturing business.

Pages 73-75, were selected from the Master Table, Pages 42-53, based on the following considerations:

15. W. W. Charters and Isadore B. Whittier, Analysis of Secretarial Duties and Traits. Baltimore: Williams and Wilkins Co., 1924. 106 pp.

16. Kate C. Skene, "Occupational Analysis As A Basis of Bookkeeping Curricula of Public Secondary Schools." Unpublished Doctor's Thesis. New York, New York: New York University. 1934. 203 pp.



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## CHAPTER VI

### SIGNIFICANT DUTIES

#### Decile Rank--Employees' Judgments

The next step was to divide the duties in the employees' Master Table, Pages 44-52, into deciles. This method was used by Charters and Whitley<sup>15</sup> and by Etta C. Skene.<sup>16</sup> The total number of duties (109) were divided into as even groups of ten as possible. The highest group was designated as decile "1," the next as "2," and so on to the lowest group which was the tenth decile. Each activity found in the first group of ten was assigned the figure "1" to indicate that it belonged to the first 10% of the 109 duties performed by the office workers. The number "2" was assigned to each activity in the second group of frequencies, and so on down through the tenth group.

The significant duties as shown in Table XV, Pages 70-73, were selected from the Master Table, Pages 44-52, based on the following considerations:

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15. W. W. Charters and Isadore B. Whitley, Analysis of Secretarial Duties and Traits. Baltimore: Williams and Wilkins Co., 1924. 186 pp.

16. Etta C. Skene, "Occupational Analysis As A Basis of Bookkeeping Curricula of Public Secondary Schools." Unpublished Doctor's Thesis. New York, New York: New York University. 1934. 203 pp.



# CHAPTER VI SIGNIFICANT DUTIES

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(1) frequency of performance; (2) number and per cent of employees designating the duty as being important; (3) school, job, and school-job votes with particular attention to school and school-job votes, as this table was to be the basis for selecting those activities to be taught in school; and (4) the average time spent on each duty. The Table indicates the rank and decile of each duty, the per cent of workers who consider the duty important and unimportant, the per cent judging whether the duty should be learned in school, on the job, or in school and on the job.

The average time columns indicate the average minutes per day, hours per week, and weeks per year one office worker spent on each of the duties presented in the Table. The figures were arrived at by dividing the time given in Table XIII, Pages 44-52, by the number of employees who gave the time (the number being different for each duty).

The average weeks per year on Table XV, Pages 70-73, varies because some of the employees considered vacations when making returns and gave only 50 or 51 weeks per year as the time spent on the duties. Others did not consider vacations and gave 52 weeks as the time spent on the duties. In some instances the number of weeks is considerably less than 52. This is due to the nature of the duty. For example, "Take Trial Balance,"



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TABLE XV. DECILE RANK OF SIGNIFICANT DUTIES  
BASED ON EMPLOYEES' JUDGMENTS

Duty No.	Rank	DUTIES	Decile	Important %	Unimportant %	School %	Job %	School-Job %	Average		
									Min. Per Day	Hours Per Week	Weeks Per Year
48	1	Answer Telephone. . .	1	81	19	13	59	28	60	6	51
14	2	Filing. . . . .	1	93	7	48	7	45	51	5 $\frac{1}{3}$	50
24	3	Make Bank Deposit . .	1	94	6	34	25	41	18	1 $\frac{3}{4}$	50
15	4.5	Take Dictation. . . .	1	99	1	88	0	12	59	5 $\frac{1}{2}$	52
16	4.5	Transcribe from Short- hand Notes . . . .	1	99	1	90	0	10	79	7 $\frac{1}{2}$	51
22a	6	Operate Calculating Machine-- <u>Adding</u> . .	1	93	7	74	13	13	81	6	50
20	7	Check Bills and In- voices . . . . .	1	87	13	16	47	37	40	4	52
19	8	Compose Letters for Employer . . . . .	1	98	2	36	19	45	39	3 $\frac{1}{2}$	51
70	9	Fold Letters and In- sert in Envelopes.	1	75	25	48	30	22	10	1	51
72	10	Wait on Customers . .	1	94	6	9	60	31	73	5 $\frac{2}{3}$	51
1	11.5	Make Journal Entries.	2	98	2	53	6	41	57	4	50
2	13	Keep General Ledger .	2	97	3	53	6	41	62	3 $\frac{1}{2}$	51
26	14	Figure Pay Rolls. . .	2	99	1	22	47	31	142	4 $\frac{1}{2}$	49
25	15	Make Out Receipts . .	2	75	25	39	32	29	17	1 $\frac{1}{3}$	51
37	16	Send Out Collection Letters. . . . .	2	91	9	23	36	41	97	3 $\frac{1}{2}$	26
8	19	Keep Accounts Receiv- able Ledger. . . .	2	100	0	41	13	46	47	3 $\frac{1}{4}$	41
7	20.5	Keep Accounts Payable Ledger . . . . .	2	98	2	44	12	44	38	4	48
9	23.5	Take Trial Balance. .	3	98	2	52	5	43	91	3	24



TABLE IV. DUTIES PAID OF SIGNIFICANT DUTIES  
BASED ON EMPLOYERS' JUDGMENTS

DUTIES	Year	No. of years	Average				
			per month	per year	per month	per year	per month
Answer Telephone . . .	1	48	30	360	13	156	13
Waiting . . . . .	2	14	31	372	7	84	7
Make Bank Deposit . .	3	34	18	216	23	276	23
Take Collection . . .	4.5	18	38	456	0	0	0
Transmitting from Short- hand Notes . . . . .	4.5	18	38	456	0	0	0
Operate Calculating Machine--Adding . .	6	23	31	372	13	156	13
Check Bills and In- voices . . . . .	7	20	40	480	27	324	27
Compose Letters for Employer . . . . .	8	19	38	456	19	228	19
Hold Letters and In- voices in Envelopes .	9	20	10	120	23	276	23
Wait on Customers . .	10	23	38	456	31	372	31
Make Journal Entries .	11.5	1	37	444	6	72	6
Keep General Ledger .	12	2	32	384	6	72	6
Figure Pay Rolls . .	14	26	31	372	27	324	27
Take Out Receipts . .	15	23	38	456	32	384	32
Send Out Collection Letters . . . . .	16	27	37	444	32	384	32
Keep Accounts Receiv- able Ledger . . . . .	18	6	47	564	13	156	13
Keep Accounts Payable Ledger . . . . .	20.5	7	38	456	13	156	13
Take Trial Balance . .	23.5	9	38	456	32	384	32



TABLE XV. (Continued) DECILE RANK OF SIGNIFICANT DUTIES  
BASED ON EMPLOYEES' JUDGMENTS

Duty No.	Rank	DUTIES	Decile	Important %	Unimportant %	School %	Job %	School-Job %	Average		
									Min. Per Day	Hours Per Week	Weeks Per Year
68	23.5	Read, Sort, and Classify Mail . . . . .	3	92	8	6	78	16	4	$\frac{1}{4}$	51
4	23.5	Balance Cash Daily . . .	3	100	0	41	16	43	22	2	51
33	23.5	Make Out Social Security and Unemployment Reports . . . . .	3	95	5	27	40	33	75	$2\frac{1}{2}$	11
69	27.5	Address Envelopes, Packing Slips . . . .	3	67	33	40	38	22	12	1	51
5	30	Keep Sales Ledger . . .	3	96	4	46	11	43	32	$3\frac{1}{2}$	50
52	32.5	Type Letters from Copy .	3	77	23	64	15	21	22	$2\frac{1}{3}$	51
3	32.5	Keep Petty Cash Book .	4	89	11	40	23	37	22	2	50
27	32.5	Prepare Pay Roll Report . . . . .	4	96	4	15	40	45	59	1	50
21	35.5	Record Invoices . . . .	4	87	13	19	44	37	45	3	52
6	35.5	Keep Purchases Ledger .	4	98	2	44	12	44	29	4	47
11	37.5	Prepare Balance Sheet .	4	98	2	59	6	35	70	$3\frac{1}{2}$	22
12	39.5	Keep Expense Accounts .	4	93	7	41	18	41	36	2	43
40	41.5	Prepare Income Tax Returns . . . . .	4	95	5	32	19	49	120	2	1
54	43.5	Type Bills, Invoices from Copy . . . . .	4	95	5	31	40	29	78	6	48
10	43.5	Prepare Profit and Loss Statement . . . . .	5	100	0	55	5	40	68	$1\frac{1}{2}$	16
22c	45	Operate Calculating Machine-- <u>Multiplied</u>	5	95	5	73	15	12	120	$6\frac{1}{2}$	50
36	46.5	Make Out Notes . . . . .	5	90	10	43	30	27	35	$2\frac{3}{4}$	47







TABLE XV. (Continued) DECILE RANK OF SIGNIFICANT DUTIES  
BASED ON EMPLOYEES' JUDGMENTS

Duty No.	Rank	DUTIES	Decile	Important %	Unimportant %	School %	Job %	School-Job %	Average		
									Min. Per Day	Hours Per Week	Per Year
22b	48	Operate Calculating Machine-- <u>Subtracting</u>	5	95	5	77	8	15	79	5	48
53	50	Type Orders from Copy.	5	89	11	46	34	20	36	3 $\frac{1}{4}$	51
46	52.5	Indexing . . . . .	5	76	24	27	27	46	29	2 $\frac{1}{2}$	50
65	52.5	Operate Mimeograph . .	5	90	10	72	4	24	75	5	36
60	54.5	Cut Stencils . . . . .	5	81	19	78	7	15	26	1 $\frac{1}{2}$	36
55	54.5	Type Checks from Copy.	6	93	7	29	52	19	66	2 $\frac{1}{8}$	48
22d	56	Operate Calculating Machine-- <u>Dividing</u> .	6	96	4	61	13	26	32	3	51
13	59.5	Post Salesmen's Com- missions. . . . .	6	95	5	16	37	47	55	2 $\frac{1}{4}$	52
50	61.5	Operate Addressograph.	6	82	18	41	41	18	111	5	37
58	63.5	Type Legal Documents from Copy . . . . .	6	88	12	25	31	44	26	3 $\frac{1}{5}$	46
17	63.5	Type from Dictating Machine . . . . .	6	100	0	57	12	31	71	10 $\frac{1}{2}$	51
104	65	Monthly Reconciliation of Check Book . . .	6	85	15	15	8	77	45	3 $\frac{1}{4}$	12
121	69.5	Operate Adding Machine.	7	100	0	71	0	29	80	7	52
66	86.5	Operate Hectograph . .	8	50	50	25	25	50	58	4 $\frac{1}{5}$	25
118	95.5	Type Profit and Loss Statement . . . . .	9	100	0	0	0	100	240	4	12
120	95.5	Type Balance Sheet . .	9	100	0	0	0	100	240	4	12
150	95.5	Make Out All Invoices.	9	100	0	0	0	100	140	16	42
227	102.5	Keep Cash Received Book. . . . .	10	100	0	0	0	100	60	6	52



TABLE XV. (Continued) JUDGMENTS OF EMPLOYEES, JUDGMENTS  
BASED ON EMPLOYEES' JUDGMENTS

Duty No.	Duty	allotted	directly assigned	indirectly assigned	located	dot %	collocated	min. 1st	min. 2nd	min. 3rd	Average
327	102.5 Keep Cash Received Book . . . . .	10	100	0	0	0	0	100	80	8	8
150	95.5 Make Out All Invoices . . . . .	9	100	0	0	0	0	100	140	18	42
130	95.5 Type Balance Sheet . . . . .	9	100	0	0	0	0	100	240	4	12
118	95.5 Type Profit and Loss Statement . . . . .	9	100	0	0	0	0	100	240	4	12
96	95.5 Operate Photograph . . . . .	8	50	50	25	25	50	50	135	15	35
121	95.5 Operate Adding Machine . . . . .	7	100	0	0	0	0	100	80	7	32
104	95 Monthly Reconciliation of Check Book . . . . .	6	85	15	15	8	75	45	15	12	32
117	95.5 Type from Dictating Machine . . . . .	6	100	0	0	0	0	100	71	10	31
93	95.5 Type Legal Documents from Copy . . . . .	6	88	12	25	21	44	38	15	46	38
90	91.5 Operate Addressograph . . . . .	6	82	18	41	41	18	111	8	27	37
13	95.5 Post Salesmen's Commissions . . . . .	6	95	5	12	37	47	65	24	32	32
324	95 Operate Calculating Machine--Dividing . . . . .	6	90	4	81	13	23	32	2	51	31
92	94.5 Type Checks from Copy . . . . .	6	83	7	29	52	19	86	28	48	38
90	94.5 Cut Stencils . . . . .	5	81	19	78	7	15	36	15	36	36
95	92.5 Operate Mimeograph . . . . .	5	90	10	72	4	24	75	5	36	36
46	92.5 Indexing . . . . .	5	78	24	27	27	48	29	24	50	30
85	90 Type Orders from Copy . . . . .	5	89	11	46	34	20	38	24	51	31
325	48 Operate Calculating Machine--Subtracting . . . . .	5	95	5	77	8	15	79	5	48	48

TABLE XV. (Continued) DECILE RANK OF SIGNIFICANT DUTIES  
BASED ON EMPLOYEES' JUDGMENTS

Duty No.	Rank	DUTIES	Decile	Important %	Unimportant %	School %	Job %	School-Job %	Average		
									Min. Per Day	Hours Per Week	Weeks Per Year
228	102.5	Keep Cash Paid Out Book . . . . .	10	100	0	0	0	100	30	3	52
229	102.5	Post Cash Received and Cash Paid Out Books	10	100	0	0	0	100	60	3	52
99	107.5	Prepare Invoices from Packing Slips, Orders . . . . .	10	100	0	0	0	100	60	6	52
248	107.5	Keep Cash Book. . . .	10	100	0	100	0	0	15	1 $\frac{1}{2}$	50





has 24 weeks per year as an average. This is due to the fact that some employees reported taking a trial balance every week, others every month, others every six months, and others once a year. "Make Out Social Security or Unemployment Reports" averages only 11 weeks per year because some employees reported performing the duty once a month and others once every three months. "Prepare Income Tax Returns" averages only one week per year, as these reports are filled out only once a year.

All of the duties of the first decile were included in the table, as all of them seemed significant. "Answer Telephone" seemed significant because (1) of the frequency of performance, (2) large per cent--81--of the employees considered it important, (3) the amount of time spent in performing this particular duty.

"Compose Letters for Employer" was thought significant because (1) the frequency of performance was high, (2) large per cent--98--considered it important, (3) 36% claimed it should be learned in school and 45% in school and on the job, (4) amount of time spent on the duty.

Within the second decile were some bookkeeping duties--"Make Journal Entries," "Keep General Ledger," "Keep Accounts Receivable Ledger," and "Keep Accounts Payable Ledger." These were thought significant because of (1) frequency of performance, (2) almost





unanimous voting for school instruction, (3) the average time spent on each duty further justified their importance. The outstanding clerical duty of this decile was "Figure Pay Rolls." It was outstanding because of its (1) frequency of performance, (2) school and school-job votes, (3) average time spent on it.

More duties from the fourth decile than the third decile appear on the Table. This is due to the fact that the duties in decile four, although not performed as frequently as those in decile three, have a higher per cent of employees considering them important and have school and school-job instruction in their favor. In the third decile happen to fall such duties as "Take Mail to the Post Office" and "Make Appointments and Engagements." These were not included in this Table of significant duties, Pages 70-73, because of the little time spent on each and because job learning was recommended.

Three of the processes performed on the calculating machine appear in the fifth and sixth deciles. Multiplying and subtracting come within the fifth decile, and dividing within the sixth decile. Adding appeared in the first decile.

A duty taken from the list of additional duties supplied by the employees appears in decile 6--"Monthly Reconciliation of Check Book." This duty was put in this table because (1) it is common to more than one





type of business, (2) instruction for school and school-job is favored, (3) its personal use value is significant.

Only one duty appears in the seventh decile. This duty, "Operate Adding Machine," was not on the original check list of duties, but was an additional duty performed by seven employees. It was considered significant because (1) all thought it was important, (2) school and school-job instruction was favored, (3) the average time spent on the duty was worthy of consideration, and (4) it is a duty that is common to more than one type of business.

"Operate Hectograph" is the only duty from the eighth decile. It was included in the table mainly because of its school and school-job votes.

A few duties from the ninth and tenth deciles were selected, not because of frequency of performance, but because (1) they seemed common to more than one type of business, (2) the few who did perform these duties advocated instruction in school or in school and on the job, and (3) the average time spent on each duty was deserving of consideration. These duties included: "Type Profit and Loss Statement," "Type Balance Sheet," "Make Out All Invoices," "Keep Cash Received Book," "Keep Cash Paid Out Book," "Post Cash Received and Cash Paid Out Book," "Prepare Invoices from Packing Slips, Orders," "Keep Cash Book."



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 Cash Paid Out Book," "Prepare Invoices from Packing  
 Slips, Orders," "Keep Cash Book."

"Type Profit and Loss Statement" and "Type Balance Sheet" were performed by three employees, each from a different type of business--newspaper publishing, machine manufacturing, and paper manufacturing. All considered the duties important, and all advocated school-job instruction. The average time spent on each annually was 240 minutes a day and 6 hours a week. Similarly, "Keep Cash Received Book" and "Keep Cash Paid Out Book" were included because of (1) their common character, (2) the average time spent on each, (3) school-job votes.

#### Decile Rank--Employers' Judgments

The duties tabulated on the employers' Master Table, Pages 57-64, were treated in the same manner as those of the employees. The employers' table contained 92 duties, as there were only 4 additional duties suggested by the employers that were thought worthy of note. The duties were divided into deciles and Table XVI, Pages 78-80, was organized. The type of information shown on this table regarding each duty is similar to that shown in the tabulation of the significant duties based on the employees' judgments on Pages 70-73.

Only 9 of the 10 duties grouped in decile "1" were transferred to this table of significant duties. The omission was "Hear Complaints in Office and Over Telephone." This duty, although required by many employers



"Type Profit and Loss Statement" and "Type Balance Sheet" were performed by three employees, each from a different type of business--newspaper publishing, manufacturing, and paper manufacturing. All considered the duties important, and all advocated school-job instruction. The average time spent on each annually was 240 minutes a day and 6 hours a week. Similarly, "Keep Cash Received Book" and "Keep Cash Paid Out Book" were included because of (1) their common character, (2) the average time spent on each, (3) school-job votes.

Decile Rank--Employers' Judgments

The duties tabulated on the employers' Master Table Pages 53-64, were treated in the same manner as those of the employees. The employers' table contained 32 duties as there were only 4 additional duties suggested by the employers that were thought worthy of note. The duties were divided into deciles and Table XVI, Pages 78-80, was organized. The type of information shown on this table regarding each duty is similar to that shown in the tabulation of the significant duties based on the employees' judgments on Pages 70-78.

Only 2 of the 10 duties grouped in decile "1" were transferred to this table of significant duties. The omission was "Keep Complaints in Office and Over Telephone." This duty, although required by many employers

TABLE XVI. DECILE RANK OF SIGNIFICANT DUTIES  
BASED ON EMPLOYERS' JUDGMENTS

Duty No.	Rank	DUTIES	Decile	Important %	Unimportant %	School %	Job %	School-Job %
15	1.5	Take Dictation. . . . .	1	99	1	87	0	13
16	1.5	Transcribe from Shorthand Notes. . . . .	1	99	1	87	0	13
26	3.5	Figure Pay Rolls. . . . .	1	95	5	16	44	40
48	3.5	Answer Telephone. . . . .	1	89	11	27	37	36
2	5	Keep General Ledger . . . .	1	97	3	51	8	41
22	6	Operate Calculating Machine	1	92	8	73	8	19
14	8.5	Filing. . . . .	1	86	14	36	20	44
24	8.5	Make Bank Deposit . . . . .	1	90	10	32	27	41
33	8.5	Make Out Social Security and Unemployment Reports . .	1	95	5	30	29	41
25	12.5	Make Out Receipts . . . . .	2	83	17	45	24	31
70	12.5	Fold Letters and Insert in Envelopes. . . . .	2	57	43	45	34	21
81	15.5	Keep Accounts Receivable Ledger . . . . .	2	100	0	39	9	52
20	18.5	Check Bills and Invoices. .	2	89	11	23	33	44
4	18.5	Balance Cash Daily. . . . .	2	96	4	38	15	47
37	18.5	Send Out Collection Letters	2	87	13	22	25	53
27	20.5	Prepare Pay Roll Report . .	2	96	4	24	32	44
68	20.5	Read, Sort, and Classify Mail . . . . .	3	63	37	17	65	18
1	24.5	Make Journal Entries. . . .	3	100	0	58	0	42
3	24.5	Keep Petty Cash Book. . . .	3	92	8	46	10	44



TABLE XVI. PROFILE PAK OF SIGNIFICANT DUTIES  
BASED ON REPORTING JUDGMENTS

Job No.	Job	Duties	Percent of Time	Percent of Time	Percent of Time	Percent of Time	Percent of Time
1	24.5	Keep Betty Cash Book . . . . .	3	32	8	48	10
2	24.5	Make Journal Entries . . . . .	3	100	0	58	0
3	20.5	Read, Sort, and Classify Mail . . . . .	3	63	37	17	65
4	20.5	Prepare Pay Roll Report . . . . .	3	96	4	34	33
5	19.5	Send Out Collection Letters . . . . .	3	87	13	33	35
6	19.5	Balance Cash Daily . . . . .	3	98	4	38	15
7	19.5	Check Bills and Invoices . . . . .	3	89	11	33	33
8	18.5	Keep Accounts Receivable Ledger . . . . .	3	100	0	33	9
9	18.5	Mail Letters and Insert in Envelopes . . . . .	3	57	43	45	34
10	18.5	Make Out Receipts . . . . .	3	83	17	45	34
11	8.5	Make Out Social Security and Unemployment Reports . . . . .	1	95	5	30	23
12	8.5	Make Bank Deposit . . . . .	1	90	10	32	27
13	8.5	File . . . . .	1	86	14	38	20
14	8	Operate Calculating Machine . . . . .	1	92	8	73	8
15	8	Keep General Ledger . . . . .	1	97	3	61	8
16	8.5	Answer Telephone . . . . .	1	89	11	37	37
17	8.5	Figure Pay Rolls . . . . .	1	95	5	13	44
18	1.5	Transcribe from Short-hand Notes . . . . .	1	99	1	87	0
19	1.5	Take Dictation . . . . .	1	99	1	87	0

TABLE XVI. (Continued) DECILE RANK OF SIGNIFICANT DUTIES  
BASED ON EMPLOYERS' JUDGMENTS

Duty No.	Rank	DUTIES	Decile	Important %	Unimportant %	School %	Job %	School-Job %
7	24.5	Keep Accounts Payable Ledger	3	96	4	46	10	44
9	24.5	Take Trial Balance . . . . .	3	96	4	50	4	46
52	27.5	Type Letters from Copy . . .	3	84	16	80	6	14
69	28	Address Envelopes, Packing Slips . . . . .	3	68	32	34	38	28
21	30.5	Record Invoices. . . . .	4	90	10	28	31	41
19	30.5	Compose Letters for Employer	4	76	24	28	31	41
72	32.5	Wait on Customers. . . . .	4	96	4	17	52	31
11	32.5	Prepare Balance Sheet. . . .	4	98	2	42	8	50
5	34.5	Keep Sales Ledger. . . . .	4	96	4	33	15	52
6	34.5	Keep Purchases Ledger. . . .	4	96	4	33	15	52
12	36	Keep Expense Accounts. . . .	4	96	4	42	16	42
10	39.5	Prepare Profit and Loss Statement . . . . .	5	95	5	42	2	56
53	42	Type Orders from Copy. . . .	5	92	8	65	3	32
36	45.5	Make Out Notes . . . . .	5	72	28	22	31	47
46	45.5	Indexing . . . . .	5	86	14	56	8	36
54	45.5	Type Bills, Invoices from Copy. . . . .	5	86	14	58	3	39
55	45.5	Type Checks. . . . .	5	89	11	47	14	39
40	45.5	Prepare Income Tax Returns .	5	92	8	31	28	41
59	50.5	Type Minutes of Meetings from Copy . . . . .	6	90	10	40	23	37



(Continued) LISTING OF DISBURSEMENTS  
PAGE OF 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

Page No.	Amount	Particulars	Debit	Credit	Balance	Debit	Credit	Balance	Debit	Credit	Balance
7	24.5	Keep Accounts Payable Ledger	3	36	4	46	10	44			
8	24.5	Take Trial Balance . . . . .	3	36	4	50	4	46			
32	24.5	Type Letters from Copy . . . . .	3	84	18	80	6	14			
33	24.5	Address Envelopes, Enclaves Bliss . . . . .	3	66	22	34	36	22			
34	24.5	Record Invoices . . . . .	4	90	10	28	31	41			
35	24.5	Compose Letters for Employer	4	76	24	28	31	41			
36	24.5	Write on Customers . . . . .	4	96	4	14	33	36			
37	24.5	Prepare Balance Sheet . . . . .	4	88	2	42	8	30			
38	24.5	Keep Sales Ledger . . . . .	4	92	4	32	18	32			
39	24.5	Keep Purchase Ledger . . . . .	4	92	4	32	18	32			
40	24.5	Keep Expense Accounts . . . . .	4	96	4	42	18	42			
41	24.5	Prepare Profit and Loss Statement . . . . .	3	36	3	42	3	36			
42	24.5	Type Orders from Copy . . . . .	3	82	8	66	3	32			
43	24.5	File Out Notes . . . . .	3	72	28	32	31	44			
44	24.5	Indexing . . . . .	3	86	14	36	8	36			
45	24.5	Type Bills, Invoices from Copy . . . . .	3	86	14	36	3	39			
46	24.5	Type Checks . . . . .	3	90	11	47	14	38			
47	24.5	Prepare Income Tax Returns . . . . .	3	82	6	31	28	41			
48	24.5	Type Minutes of Meetings from Copy . . . . .	3	90	10	40	22	37			

TABLE XVI. (Continued) DECILE RANK OF SIGNIFICANT DUTIES  
BASED ON EMPLOYERS' JUDGMENTS

Duty No.	Rank	DUTIES	Decile	Important %	Unimportant %	School %	Job %	School-Job %
60	50.5	Cut Stencils. . . . .	6	63	37	80	3	17
65	52	Operate Mimeograph. . . . .	6	69	31	73	3	24
58	53	Type Legal Documents from Copy . . . . .	6	77	23	50	23	27
57	56.5	Type Articles, Manuscripts from Copy. . . . .	7	76	24	57	19	24
17	58	Type from Dictating Machine	7	90	10	80	10	10
66	59	Operate Hectograph. . . . .	7	50	50	61	22	17
13	61	Post Salesmen's Commissions	7	94	6	37	6	57
50	62.5	Operate Addressograph . . . .	7	64	36	43	36	21
114	89.5	Good Penmanship . . . . .	10	100	0	100	0	0
90	89.5	Understand Why Stock Turn- over is Figured. . . . .	10	100	0	100	0	0
91	89.5	Interpret Statement of Expenses . . . . .	10	100	0	100	0	0
92	89.5	Prepare Invoices from Pack- ing Records. . . . .	10	100	0	0	100	0

1. The duties are ranked quite similar by both employers and employees when they are considered as no definite groupings. There is no great disagreement in the tabulation of the duties. Most of the duties performed by employees rank within one decile of those requested by employers. The duties that rank more than one decile apart are:



TABLE XVI. (Continued) DECILES RANK OF SIGNIFICANT DUTIES  
BASED ON EMPLOYERS' JUDGMENTS

Duty No.	Rank	DUTIES	Decile	First quartile %	Third quartile %	Median %	Lower %	Upper %
60	80.5	Out Stenographer . . . . .	6	83	37	80	3	17
61	82	Operate Mimeograph . . . . .	6	83	31	73	3	24
62	83	Type Legal Documents from Copy . . . . .	6	77	23	50	23	27
63	84.5	Type Articles, Manuscripts from Copy . . . . .	7	76	24	57	18	24
17	85	Type from Dictating Machine	7	80	10	80	10	10
64	85	Operate Micrograph . . . . .	7	80	50	61	23	17
18	81	Post Salesmen's Commissions	7	84	6	37	6	25
65	82.5	Operate Addressograph . . . . .	7	84	38	43	35	21
14	89.5	Good Penmanship . . . . .	10	100	0	100	0	0
90	89.5	Understand Why Stock Turns over as figured . . . . .	10	100	0	100	0	0
91	89.5	Interpret Statement of Expenses . . . . .	10	100	0	100	0	0
92	89.5	Prepare Invoices from Packing Records . . . . .	10	100	0	100	0	0

(59 out of 78) of their employees, did not rank very high as to per cent of employers who thought it should be taught in school (15%).

"Type Minutes of Meetings" and "Type Articles and Manuscripts" appear on the employers' table. Although they ranked within the sixth and seventh deciles respectively by both groups, they were omitted from the employees' table because (1) so few performed the duty, (2) job instruction was favored, and (3) the amount of time spent on each was negligible. They were included in the employers' table because school and school-job instruction was highly favored.

The remainder of the duties are ranked somewhat similar by both groups with the exception of the new duties suggested by employees and employers. The four new duties recommended by employers were included in this table because of their significance as discussed on Page 67.

### Conclusions

1. The duties are ranked quite similar by both employers and employees when they are considered as to decile groupings. There is no great disagreement in the tabulation of the duties. Most of the duties performed by employees rank within one decile of those requested by employers. The duties that rank more than one decile apart are:



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they ranked within the sixth and seventh deciles respectively by both groups, they were omitted from the employees' table because (1) so few performed the duty, (2) job instruction was favored, and (3) the amount of time spent on each was negligible. They were included in the employers' table because school and school-job instruction was highly favored.

The remainder of the duties are ranked somewhat similar by both groups with the exception of the new duties suggested by employees and employers. The four new duties recommended by employers were included in this table because of their significance as discussed on page 57.

### Conclusions

1. The duties are ranked quite similar by both employers and employees when they are considered as to decile groupings. There is no great disagreement in the tabulation of the duties. Most of the duties performed by employees rank within one decile of those requested by employers. The duties that rank more than one decile apart are:

- a. "Make Out Social Security and Unemployment Reports"  
Third decile by employees  
First decile by employers
  - b. "Prepare Pay Roll Report"  
Fourth decile by employees  
Second decile by employers
  - c. "Compose letters for Employer"  
First decile by employees  
Fourth decile by employers
  - d. "Wait on Customers"  
First decile by employees  
Fourth decile by employers
  - e. "Type Minutes of Meetings"  
Does not appear on employees' table  
Sixth decile by employers
  - f. "Type Articles, Manuscripts"  
Does not appear on employees' table  
Seventh decile by employers
2. These duties represent a wealth of instruction material for teachers of commercial pupils in small communities. The high school commercial subjects should be taught from a vocational point of view so that graduates may be prepared to take office jobs and to succeed in their work.
3. From these duties, many activities can be selected to be included in the different high school commercial courses of study, some of which need to be taught on the mastery level and others on the acquaintanceship level of instruction.



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## CHAPTER VII

### OFFICE DUTIES THAT SHOULD BE TAUGHT IN SCHOOL

#### Percentages of School-Job Judgments

The next step was to consider the school, job, and school-job judgments of the employees and employers. The employees and employers were asked to check each duty they performed or required their employees to be able to perform as to whether they thought the duty should be taught in school, learned on the job, or learned in school and on the job. It may be that some of these judgments may not have been made as accurately as they might have been if each individual had been interviewed personally. However, it is safe to assume that a good per cent of those who did return correctly filled out forms did give the matter some consideration.

The duties selected to be taught in school were taken from Tables XV and XVI, Pages 70-73 and 78-80, which gave the decile rank of significant duties by employees and employers respectively. For each of the 56 duties in the employees' table and the 49 duties in the employers' table, the Job-School ratio was worked out. The following tables, Tables XVII and XVIII, Pages 85-90, present the duties that should be taught in school.



## CHAPTER VII

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#### Percentages of School-Job Judgments

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The duties selected to be taught in school were taken from Tables XV and XVI, Pages 70-73 and 74-80, which gave the decile rank of significant duties by employees and employers respectively. For each of the 80 duties in the employees' table and the 43 duties in the employers' table, the job-school ratio was worked out. The following tables, Tables XVII and XVIII, Pages 85-90, present the duties that should be taught in school.

The rank of each duty as previously shown in Tables XIII and XIV, Pages 44-52 and 57-64, is repeated in Tables XVII and XVIII. In the column headed "frequency" is given the frequency of performance in the employees' table and the frequency of mention in the employers' table. In the column headed "decile" is given the decile ranking of each duty, shown previously in Tables XV and XVI, Pages 70-73 and 78-80. In the column headed "school" is given the number of votes in favor of learning the duty in school. In the column headed "job" is given the number of votes in favor of learning the duty on the job. In the column headed "school-job" is given the number of votes in favor of learning the duty in school and on the job. In the column indicated by  $\frac{S+SJ}{S+J+SJ}$  is given the percentage that the number of school plus school-job mentions is of the total mentions. In the column headed "Instruction Level" is given whether the activity should be taught on a mastery or acquaintanceship level. Mastery is indicated by an "M" in this column and acquaintanceship by an "A." The duties in the table are presented according to the classification of duties on the check lists, Schedules B and C, Pages 192-196 and 197-199, that were mailed to the employees and employers. This would enable the reader to see at a glance what group of activities is predominant.



The rank of each duty as previously shown in Tables XIII and XIV, Pages 44-45 and 47-48, is repeated in Tables XVII and XVIII. In the column headed "frequency" is given the frequency of performance in the employees' table and the frequency of mention in the employers' table. In the column headed "decide" is given the decide ranking of each duty, shown previously in Tables XV and XVI, Pages 70-71 and 73-74. In the column headed "school" is given the number of votes in favor of learning the duty in school. In the column headed "job" is given the number of votes in favor of learning the duty on the job. In the column headed "school-job" is given the number of votes in favor of learning the duty in school and on the job. In the column indicated by  $\frac{S+J}{S+J+J}$  is given the percentage that the number of school plus school-job mentions is of the total mentions. In the column headed "Instruction Level" is given whether the activity should be taught on a mastery or acquaintance level. Mastery is indicated by an "M" in this column and acquaintance by an "A." The duties in the table are presented according to the classification of duties on the check lists, Schedules B and C, Pages 122-123 and 127-128, that were mailed to the employees and employers. This would enable the reader to see at a glance what group of activities is predominant.

TABLE XVII. DUTIES THAT SHOULD BE TAUGHT IN SCHOOL  
BASED ON EMPLOYEES' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{S+SJ}{S+J+SJ}$	Instruction Level
	<u>Keep Books and Ledgers:</u>							
11.5	Make Journal Entries. . .	80	2	42	5	33	94	M
13	Keep General Ledger . .	79	2	42	5	32	94	M
19	Keep Accounts Receivable Ledger. . . . .	70	2	29	9	32	87	M
20.5	Keep Accounts Payable Ledger . . . . .	64	2	28	8	28	88	M
23.5	Take Trial Balance. . .	63	3	33	3	27	95	M
23.5	Balance Cash Daily. . .	63	3	26	10	27	84	M
30	Keep Sales Ledger . . .	54	3	25	6	23	89	M
32.5	Keep Petty Cash Book. .	53	4	21	12	20	77	M
35.5	Keep Purchases Ledger .	52	4	23	6	23	88	M
37.5	Prepare Balance Sheet .	48	4	28	3	17	94	M
39.5	Keep Expense Accounts .	46	4	19	8	19	82	M
43.5	Prepare Profit and Loss Statement. . . . .	42	5	23	2	17	95	M
2	<u>Filing</u> . . . . .	105	1	51	7	47	93	M
	<u>Stenographic Duties:</u>							
4.5	Take Dictation. . . . .	91	1	80	0	11	100	M
4.5	Transcribe from Short-hand Notes . . . . .	91	1	82	0	9	100	M
8	Compose Letters for Employer . . . . .	84	1	30	16	38	81	A
	<u>Clerical Duties:</u>							
1	Answer Telephone. . . .	109	1	14	64	31	41	A



TABLE XVII. DUTIES THAT SHOULD BE TAUGHT IN SCHOOL  
BASED ON EMPLOYERS' JUDGMENTS

Rank	DUTIES	Frequency	Grade	School	Age	School-leaves	3 + 3 + 3	12 + 12 + 12
1	Answer Telephone . . . . .	100	1	14	84	31	41	A
	<u>Classical duties:</u>							
2	Compose letters for Employer . . . . .	84	1	30	18	33	81	A
3	Hand Notes . . . . .	91	1	62	0	8	100	M
4.5	Transcribe from Short-Hand Notes . . . . .	91	1	62	0	8	100	M
4.5	Take Dictation . . . . .	91	1	80	0	11	100	M
	<u>Stenographic duties:</u>							
5	Writing . . . . .	108	1	51	7	47	93	M
43.5	Prepare Profit and Loss Statement . . . . .	42	5	23	2	17	96	M
39.5	Keep Expense Accounts . . . . .	46	4	19	8	19	82	M
37.5	Prepare Balance Sheet . . . . .	48	4	28	3	17	84	M
36.5	Keep Purchases Ledger . . . . .	52	4	23	6	28	88	M
32.5	Keep Petty Cash Book . . . . .	52	4	21	12	20	77	M
30	Keep Sales Ledger . . . . .	54	3	25	6	23	89	M
23.5	Balance Cash Daily . . . . .	63	3	26	10	27	84	M
23.5	Take Trial Balance . . . . .	63	3	23	3	27	95	M
20.5	Keep Accounts Payable Ledger . . . . .	64	2	28	8	28	88	M
19	Keep Accounts Receivable Ledger . . . . .	70	2	29	9	32	87	M
18	Keep General Ledger . . . . .	79	2	42	5	32	94	M
11.5	Keep Books and ledgers: Make Journal Entries . . . . .	80	2	42	5	33	94	M

TABLE XVII. (Continued) DUTIES THAT SHOULD BE TAUGHT IN SCHOOL  
BASED ON EMPLOYEES' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{S + SJ}{S + J + SJ}$	Instruction Level
3	Make Bank Deposit . . .	93	1	32	23	38	76	M
6	Operate Calculating Machine-- <u>Adding</u> . . .	90	1	66	12	12	87	M
14	Figure Pay Rolls. . . .	77	2	17	36	24	53	A
15	Make Out Receipts . . .	76	2	30	24	22	68	A
16	Send Out Collection Letters. . . . .	74	2	17	27	30	64	A
23.5	Make Out Social Security and Unemployment Reports. . . . .	63	3	17	25	21	60	A
32.5	Prepare Pay Roll Report. . . . .	53	4	8	21	24	55	A
41.5	Prepare Income Tax Returns. . . . .	43	4	14	8	21	81	A
45	Operate Calculating Machine-- <u>Multiplying</u> . . . . .	41	5	30	6	5	85	M
46.5	Make Out Notes. . . . .	40	5	17	12	11	70	M
48	Operate Calculating Machine-- <u>Subtracting</u> . . . . .	39	5	30	3	6	92	M
52.5	Indexing. . . . .	29	5	8	8	13	73	A
56	Operate Calculating Machine-- <u>Dividing</u> . . . . .	23	6	14	3	6	87	A
65	Monthly Reconciliation of Check Book. . . .	13	6	2	1	10	92	A
69.5	Operate Adding Machine.	7	7	5	0	2	100	M



TABLE XVII. (Continued) DUTIES THAT SHOULD BE TAUGHT IN SCHOOL  
BASED ON EMPLOYERS' JUDGMENTS

Rank	DUTIES	Prepared	Desired	School	dot	dot-100	$\frac{100 + 2}{3}$	not-taught
3	Make Bank Deposit . . .	93	1	32	23	38	76	1
6	Operate Calculating Machine--Adding . . .	90	1	68	12	12	97	1
14	Figure Pay Rolls . . .	77	2	17	36	24	32	1
16	Make Out Receipts . . .	76	2	30	24	22	68	1
18	Send Out Collection Letters . . . . .	74	2	17	27	30	64	1
22.5	Make Out Social Security and Unemployment Reports . . . . .	63	3	17	25	21	60	1
22.5	Prepare Pay Roll Report . . . . .	53	4	8	21	24	28	1
41.5	Prepare Income Tax Returns . . . . .	42	4	14	8	21	81	1
45	Operate Calculating Machine--Multiply- ing . . . . .	41	5	30	6	5	35	1
46.5	Make Out Notes . . . . .	40	5	17	12	11	70	1
48	Operate Calculating Machine--Subtract- ing . . . . .	39	5	30	3	6	32	1
52.5	Indexing . . . . .	29	5	8	9	13	73	1
56	Operate Calculating Machine--Dividing . . .	23	6	14	3	6	87	1
66	Monthly Reconciliation of Check Book . . .	12	6	2	1	10	92	1
69.5	Operate Adding Machine . . .	7	7	5	0	2	100	1

TABLE XVII. (Continued) DUTIES THAT SHOULD BE TAUGHT IN SCHOOL  
BASED ON EMPLOYEES' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{S + SJ}{S + J + SJ}$	Instruction Level
	<u>Type from Copy:</u>							
32.5	Letters. . . . .	53	3	34	8	11	85	M
43.5	Bills, Invoices. . . . .	42	4	13	17	12	60	A
50	Orders . . . . .	35	5	16	12	7	66	A
54.5	Cut Stencils . . . . .	27	5	21	2	4	93	A
63.5	Legal Documents. . . . .	16	6	4	5	7	69	A
	<u>Operate Duplicating Machines:</u>							
52.5	Mimeograph . . . . .	29	5	21	1	7	96	A
	<u>Mailing Duties:</u>							
9	Fold Letters and Insert in Envelopes. . . . .	83	1	4	25	18	70	M
23.5	Read, Sort, and Classify Mail. . . . .	63	3	4	49	10	22	A
27.5	Address Envelopes, Packing Slips . . . . .	58	3	23	22	13	62	M
	<u>Meeting and Handling People</u>							
10	Wait on Customers. . . . .	82	1	7	49	26	40	A





TABLE XVIII. DUTIES THAT SHOULD BE TAUGHT IN SCHOOL  
BASED ON EMPLOYERS' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{S + SJ}{S + J + SJ}$	Instruction Level
	<u>Keep Books and Ledgers:</u>							
5	Keep General Ledger. . .	61	1	31	5	25	92	M
15.5	Keep Accounts Receivable Ledger. . . . .	56	2	22	5	29	91	M
18.5	Balance Cash Daily . . .	55	2	21	8	26	85	M
24.5	Make Journal Entries . .	52	3	30	0	22	100	M
24.5	Keep Petty Cash Book . .	52	3	24	5	23	90	M
24.5	Keep Accounts Payable Ledger. . . . .	52	3	24	5	23	90	M
24.5	Take Trial Balance . . .	52	3	26	2	24	96	M
32.5	Prepare Balance Sheet. .	48	4	20	4	24	92	M
34	Keep Expense Accounts. .	47	4	20	7	20	84	M
35.5	Keep Sales Ledger. . . .	46	4	15	7	24	85	M
35.5	Keep Purchases Ledger. .	46	4	15	7	24	85	M
39.5	Prepare Profit and Loss Statement . . . . .	43	5	18	1	24	98	M
8.5	<u>Filing. . . . .</u>	59	1	21	12	26	80	M
	<u>Stenographic Duties:</u>							
1.5	Take Dictation . . . . .	71	1	62	0	9	100	M
1.5	Transcribe from Short- hand Notes. . . . .	71	1	62	0	9	100	M
30.5	Compose Letters for Employer. . . . .	49	4	14	15	20	69	A
	<u>Clerical Duties:</u>							
3.5	Figure Pay Rolls . . . .	62	1	10	27	25	57	A





TABLE XVIII. (Continued) DUTIES THAT SHOULD BE TAUGHT IN SCHOOL  
BASED ON EMPLOYERS' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{S+SJ}{S+J+SJ}$	Instruction Level
3.5	Answer Telephone. . . . .	62	1	17	23	22	63	A
6	Operate Calculating Machine. . . . .	60	1	44	5	11	92	M
8.5	Make Bank Deposit . . . . .	59	1	19	16	24	73	M
8.5	Make Out Social Security and Unemployment Reports. . . . .	59	1	18	17	24	71	A
12.5	Make Out Receipts . . . . .	58	2	26	14	18	76	A
18.5	Check Bills and Invoices . . . . .	55	2	13	18	24	67	A
18.5	Send Out Collection Letters. . . . .	55	2	12	14	29	75	A
20.5	Prepare Pay Roll Report	54	2	13	17	24	68	A
30.5	Record Invoices . . . . .	49	4	14	15	20	69	A
45.5	Make Out Notes. . . . .	36	5	8	11	17	69	A
45.5	Indexing. . . . .	36	5	20	3	13	92	A
45.5	Prepare Income Tax Returns. . . . .	36	5	11	10	15	72	A
86.5	Good Penmanship . . . . .	2	10	2	0	0	100	M
89.5	Interpret Statement of Expenses . . . . .	1	10	1	0	0	100	A
89.5	Understand Why Stock Turnover is Figured.	1	10	1	0	0	100	A
	<u>Type from Copy:</u>							
27.5	Letters . . . . .	51	3	41	3	7	96	M
42	Orders. . . . .	37	5	24	1	12	95	A



(continued) DUTIES THAT SHOULD BE TAUGHT IN SCHOOL  
BASED ON RESEARCH, JUDGMENTS

Index	DUTIES	Years	eldest	youngest	date	date	date	date	date
2.5	Letter to Parents . . . . .	32	1	14	23	23	23	23	23
3	Letter to Parents . . . . .	30	1	44	2	11	11	11	11
4.5	Letter to Parents . . . . .	39	1	16	16	24	24	24	24
5.5	Letter to Parents . . . . .	39	1	16	16	24	24	24	24
12.5	Letter to Parents . . . . .	32	3	26	14	19	19	19	19
13.5	Letter to Parents . . . . .	32	3	13	14	24	24	24	24
14.5	Letter to Parents . . . . .	35	3	13	14	24	24	24	24
15.5	Letter to Parents . . . . .	35	3	13	14	24	24	24	24
16.5	Letter to Parents . . . . .	34	3	13	17	24	24	24	24
17.5	Letter to Parents . . . . .	40	4	14	18	29	29	29	29
18.5	Letter to Parents . . . . .	38	5	14	18	29	29	29	29
19.5	Letter to Parents . . . . .	38	5	14	18	29	29	29	29
20.5	Letter to Parents . . . . .	38	5	14	18	29	29	29	29
21.5	Letter to Parents . . . . .	38	5	14	18	29	29	29	29
22.5	Letter to Parents . . . . .	38	5	14	18	29	29	29	29
23.5	Letter to Parents . . . . .	38	5	14	18	29	29	29	29
24.5	Letter to Parents . . . . .	38	5	14	18	29	29	29	29
25.5	Letter to Parents . . . . .	38	5	14	18	29	29	29	29
26.5	Letter to Parents . . . . .	38	5	14	18	29	29	29	29
27.5	Letter to Parents . . . . .	38	5	14	18	29	29	29	29
28	Letter to Parents . . . . .	38	5	14	18	29	29	29	29

TABLE XVIII. (Continued) DUTIES THAT SHOULD BE TAUGHT IN SCHOOL  
BASED ON EMPLOYERS' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{S+SJ}{S+J+SJ}$	Instruction Level
45.5	Bills, Invoices. . . . .	36	5	21	1	14	97	A
45.5	Checks . . . . .	36	5	17	5	14	86	A
50.5	Minutes of Meetings. . .	30	6	12	7	11	77	A
50.5	Cut Stencils. . . . .	30	6	24	1	5	97	A
53	Legal Documents. . . . .	26	6	13	6	7	77	A
56.5	Articles, Manuscripts. .	51	7	12	4	5	71	A
	<u>Operate Duplicating Machines:</u>							
52	Mimeograph . . . . .	29	6	21	1	7	97	A
	<u>Mailing Duties:</u>							
12.5	Fold Letters and Insert in Envelopes. . . . .	58	2	26	20	12	66	M
20.5	Read, Sort, and Classify Mail. . . . .	54	3	9	35	18	35	A
28	Address Envelopes, Packing Slips . . . . .	50	3	17	19	14	62	M
	<u>Meeting and Handling People</u>							
32.5	Wait on Customers. . . .	48	4	8	25	15	48	A



TABLE XVII. (Continued) LISTED DATA GROUPED BY SUBJECT IN SCHOOL  
BASED ON SUBJECTS' JUDGMENTS

Subject	Writing	Reading	Spelling	Grammar	Composition	Mathematics	Science	History	Geography	Physical Education	Art	Music	Other
43.3	Bills, Invoices . . . . .	38	3	21	1	14	37	A					
43.3	Checks . . . . .	38	3	14	3	14	36	A					
50.3	Minutes of Meetings . . . . .	30	3	12	7	11	77	A					
50.3	Out Stencils . . . . .	30	3	24	1	5	97	A					
53	Legal Documents . . . . .	23	3	13	8	7	77	A					
53.3	Articles, Manuscripts . . . . .	31	7	13	4	5	71	A					
	<u>Private Publishing</u> <u>Address:</u>												
53	Manuscript . . . . .	23	3	21	1	7	97	A					
	<u>Printing Dates:</u>												
13.3	With Letters and Insert in Envelopes . . . . .	33	3	23	20	13	63	A					
20.3	Text, Copy, and Original Mail . . . . .	34	3	3	33	13	33	A					
23	Address Envelopes, Teaching Signs . . . . .	30	3	14	13	14	63	A					
	<u>Meeting and Learning People</u>												
33.3	Text on Customers . . . . .	43	4	3	23	13	43	A					

Selection of Activities to be Taught in School

Decision had to be made from the tables of significant duties, Pages 70-73 and 78-80, as to which of these activities should be taught in school. The following points were taken into consideration in selecting these activities: (1) decile ranking of the duties; (2) frequency of performance or mention; (3) number of votes advocating teaching the duties in school and school-job; (4) per cent in favor of learning activity in school and school-job. The selection of each duty did not require it to rank high in all of these cases. For example, "Answer Telephone" was included as an activity to be learned in school even though only 41% of the employees and 23% of the employers favored learning the activity in school. It was included because of its (1) decile rank and (2) because of its frequency of performance by the majority of office workers. On the other hand, "Type from Dictating Machine" found in the sixth and seventh deciles was excluded from the activities to be learned in school even though 57% of the employees and 80% of the employers advocated learning the activity in school. The reasons for this decision are that it is confined to only a few of the businesses surveyed and that only 16 out of the 168 employees performed the activity.

taught on the mastery level was based on (1) frequency





Mastery and Acquaintanceship Levels of Instruction

Activities to be taught on the mastery and acquaintanceship levels had to be selected. Teaching an activity on a mastery level means that the pupil will have acquired a piece of learning and has mastered it completely through constant practice and study, making many different applications and uses of the activity as possible. Teaching an activity on an acquaintanceship level means more or less the giving of a point of view--acquainting the pupils with an activity so that if they ever meet it, they will not be at a loss to know what it is or what to begin to do. For example, "Make Journal Entries" would have to be taught on the mastery level because there are so many different problems involved in journalizing and the pupils should become more or less proficient in dealing with them and to be able to apply these principles to new situations. "Make Out Social Security and Unemployment Reports," on the other hand, would be taught on an acquaintanceship level, as these reports are more or less standardized with directions usually attached. It would be necessary, therefore, to merely acquaint the pupils with these forms. They would, then, recognize them if they should ever have to fill them out.

Determination as to which activities should be taught on the mastery level was based on (1) frequency





of performance and mention, (2) decile rank, (3) number of votes favoring "school" instruction, (4) nature of activity--difficult or easy. The selection of those activities to be taught on the acquaintanceship level was based on (1) frequency of performance or mention, (2) decile rank, (3) number of votes in favor of "school-job" instruction; (4) nature of activity--difficult or easy.

Again, the duty did not have to qualify in every instance to be taught on the mastery level or acquaintanceship level. If a duty ranked high in frequency of performance or mention and was a duty that would involve the application of different or new principles, it was recommended to be taught on the mastery level even though more votes were given for "school-job" instruction than "school" instruction. "Keep Accounts Receivable Ledger" and "Prepare Balance Sheet" are examples of this reasoning. If a duty did not rank high in frequency of performance or mention and was not a difficult duty, it was recommended to be learned on the acquaintanceship level even though "school" votes exceeded "school-job" votes. "Make Out Receipts" and "Cut Stencils" illustrate this reasoning.

#### Conclusions and Recommendations

1. All of the duties on the original check list that appeared under "Keep Books and Ledgers" are included



of performance and mention, (2) decide rank, (3)

number of votes favoring "school" instruction, (4)

nature of activity--difficult or easy. The selection

of those activities to be taught on the acquaintance-

ship level was based on (1) frequency of performance

or mention, (2) decide rank, (3) number of votes in

favor of "school-job" instruction; (4) nature of acti-

vity--difficult or easy.

Again, the duty did not have to qualify in every

instance to be taught on the mastery level or acquaintance-

level. If a duty ranked high in frequency of

performance or mention and was a duty that would involve

the application of different or new principles, it was

recommended to be taught on the mastery level even though

more votes were given for "school-job" instruction than

"school" instruction. "Keep Accounts Receivable Ledger"

and "Prepare Balance Sheet" are examples of this reason.

If a duty did not rank high in frequency of performance

or mention and was not a difficult duty, it was recom-

mended to be learned on the acquaintance level even

though "school" votes exceeded "school-job" votes.

"Make Out Receipts" and "Get Stenella" illustrate this

reasoning.

### Combined Judgments of Employees and Employers

The activities to be taught in school as judged by employees and employers were combined into one table. The duties were selected from Tables XVII and XVIII, Pages 85-90, and the combined judgments are shown in Table XIX, Pages 95-96. The duties are presented according to the original check list classification and are listed in the same order as they appeared under each classification. They are not listed according to frequency of mention or performance, as there was a little discrepancy in the ranking of the duties by the employees and employers. It was, therefore, difficult to decide which duty to place first. Furthermore, the rank is not essential in this table as it presents a summary of all that has been presented in previous tables. It is to be used as a basis for curriculum and course of study revision, thus making it necessary to present the activities only under their general classifications. In this way it can readily be seen which general type of instruction is essential and the individual activities that should be taught in school, either on the mastery or acquaintanceship level of instruction.

### Conclusions and Recommendations

1. All of the duties on the original check list that appeared under "Keep Books and Ledgers" are included





TABLE XIX. DUTIES TO BE LEARNED IN SCHOOL  
COMBINED JUDGMENTS OF EMPLOYEES AND EMPLOYERS

Mastery Level	Acquaintanceship Level
<p><u>Keep Books and Ledgers:</u>            Make Journal Entries            Keep General Ledger            Keep Petty Cash Book            Balance Cash Daily            Keep Sales Ledger            Keep Purchases Ledger            Keep Accounts Payable Ledger            Keep Accounts Receivable Ledger            Take Trial Balance            Prepare Profit and Loss Statement            Prepare Balance Sheet            Keep Expense Accounts</p>	<p><u>Stenographic:</u>            Compose Letters for Employer</p> <p><u>Clerical:</u>            Check Bills and Invoices            Record Invoices            Make Out Receipts            Figure Pay Rolls            Prepare Pay Roll Report            Make Out Social Security and Unemployment Reports            Make Out Notes            Send Out Collection Letters            Prepare Income Tax Returns            Indexing            Answer Telephone            Monthly Reconciliation of Check Book            Understand Why Stock Turnover is Figured            Interpret Statement of Expenses</p>
<p><u>Filing</u>  <u>Stenographic:</u>            Take Dictation            Transcribe from Shorthand Notes</p> <p><u>Clerical:</u>            Operate Calculating Machine            Make Bank Deposit            Operate Adding Machine            Good Penmanship</p>	<p><u>Type from Copy:</u>            Orders            Bills, Invoices            Checks</p>





TABLE XIX. (Continued) DUTIES TO BE LEARNED IN SCHOOL  
COMBINED JUDGMENTS OF EMPLOYEES AND EMPLOYERS

Mastery Level	Acquaintanceship Level
<p><u>Type from Copy:</u> Letters</p> <p><u>Mailing Duties:</u> Fold Letters and Insert in Envelopes Address Envelopes, Packing Slips</p>	<p><u>Type from Copy (Cont'd):</u> Articles, Manuscripts Legal Documents Minutes of Meetings Cut Stencils</p> <p><u>Operate Duplicating Machines:</u> Mimeograph</p> <p><u>Mailing Duties:</u> Read, Sort, and Classify Mail</p> <p><u>Meeting and Handling People:</u> Wait on Customers</p>





as activities that should be taught in school with the exception of "Post Salesmen's Commissions."

Even though votes of both groups were in favor of school and school-job instruction, it was not classified as an activity to be taught in school because it was performed by a negligible number of employees (19 out of 168) and was mentioned by only 16 out of 78 employers. All of these duties should be taught on the mastery level.

2. "Filing" and the "Stenographic Duties" are included because of their high degree of frequency and mention and because of a unanimity of votes for school instruction. "Compose Letters for Employers" should be taught on an acquaintanceship level. The graduate may be placed in almost any type of business, and so long as he is made acquainted in school with the essential rudiments of letter writing, he ought to be able to adapt himself to any employer.
3. A number of the clerical duties need to be taught on the acquaintanceship level only. "Answer Telephone" is included as an activity to be learned on the acquaintanceship level because of its high frequency of performance. Pupils in high school should be made acquainted with correct telephone manners. "Figure Pay Rolls" was included to be taught on the acquaintanceship level because of its frequency





of performance and because "school-job" instruction was favored. The clerical duties that should be taught on the mastery level are "Operate Calculating Machine," "Make Bank Deposit," and "Good Penmanship," which was emphatically recommended by two employers.

4. Under the "Type from Copy" duties only one should be taught on the mastery level--"Type Letters." The other duties appearing under this heading are (1) performed infrequently, (2) the votes for instruction tend to favor school-job instruction, or (3) the duties are of such a nature that an individual could easily adapt himself to performing them with a minimum amount of instruction in school and further training on the job.
5. Two other duties should be taught on the mastery level--"Fold Letters and Insert in Envelopes" and "Address Envelopes, Packing Slips." High frequency of performance and a majority of votes for school instruction placed "Address Envelopes, Packing Slips" under this classification. Employers favored school instruction for "Fold Letters and Insert in Envelopes," while employees favored school-job instruction. It was recommended for instruction on the mastery level because of its high frequency of performance and mention.





6. Although "Waiting on Customers" has a majority of votes for learning on the job, it was included in the activities to be taught in school because of (1) its high frequency and (2) it is such a complex and subtle duty that careful consideration should be given it in school.
7. The two duties on the employers' table, "Understand Why Stock Turnover is Figured" and "Interpret Statement of Expenses," were included in spite of the low frequency of mention. The reasons for this are (1) their significance in interpreting bookkeeping records, (2) the possible need for this type of training in this day of an income tax paying population, (3) partially fulfilling the modern demand for consumer training of young people.
8. All of the bookkeeping processes, from journalizing to closing the books, should be taught on the mastery level in the high schools of small communities. Some consideration should be given to not only making records but interpreting them as well.
9. Employers and employees depend on the high school to prepare office workers for taking dictation and transcribing from shorthand notes. The high school should prepare its commercial graduates to be proficient in taking dictation and in transcription.





10. The clerical duties that these office workers are called upon to perform should be included in the high school commercial courses of study. Some of these activities can be included in the bookkeeping instruction, and others in an office practice or clerical practice course.
11. Type from copy is not such an important duty as the stenographic duties. Overemphasis should not be placed on it in the pupils' high school training.
12. Instruction should be given in "Operating the Calculating Machine." Sixty out of 78 employers require their office workers to be able to operate the machine, and 90 out of 168 employees use the machine. The process for which the machine is used most is adding. Therefore, high school pupils should learn to operate the machine, with emphasis on manipulating the machine for adding purposes, and with less emphasis on operating it for multiplying, subtracting, and dividing.
13. The instruction of high school commercial pupils should include training in meeting and handling people--the proper approach, giving of information, acting in place of employer, etc.
14. Those duties requested by employers but not ranked very high for school instruction by employees indicate a need for office workers to be able to perform these duties. Therefore, the school should



10. The clerical duties that these office workers are called upon to perform should be included in the high school commercial courses of study. Some of these activities can be included in the bookkeeping instruction, and others in an office practice or clerical practice course.
11. Type from copy is not such an important duty as the stenographic duties. Overemphasis should not be placed on it in the pupils' high school training.
12. Instruction should be given in "Operating the Calculating Machine." Sixty out of 78 employers require their office workers to be able to operate the machine, and 90 out of 100 employees use the machine. The process for which the machine is used most is adding. Therefore, high school pupils should learn to operate the machine, with emphasis on manipulating the machine for adding purposes, and with less emphasis on operating it for multiplying, subtracting, and dividing.
13. The instruction of high school commercial pupils should include training in meeting and handling people--the proper approach, giving of information, acting in place of employer, etc.
14. Those duties requested by employers but not ranked very high for school instruction by employees indicate a need for office workers to be able to perform these duties. Therefore, the school should

not overlook them but should give some preparation for them either on the mastery level or acquaintance-ship level as indicated in Table XIX, Pages 95-96, which gives the combined judgments of both groups. "Check Bills and Invoices" and "Record Invoices" are two duties which come under this reasoning.

15. Office workers in small communities are called upon to do many varied office duties and it is the responsibility of the high schools in these communities to prepare their commercial graduates to be worthy applicants for the jobs in the communities.
16. Guidance counselors may use the analysis of duties as a basis for determining the pupils who should take specialized commercial education courses. The aptitudes, interests, and abilities of pupils to perform the varied activities as determined by this study should determine the eligibility of pupils to enter vocational training.
17. This analysis of duties will be of benefit to curriculum makers of high schools in communities such as those surveyed in this research. It will enable them to determine the commercial curriculum content for these high schools.
18. Prospective office workers may consult the study to see what employers expect of their employees and to analyze their own ability to perform such activities.





## CHAPTER VIII

### DUTIES TO BE LEARNED ON THE JOB

#### Percentage of Job-School Judgments

The duties to be learned on the job were then considered. The duties to be taught in school were taken from Tables XV and XVI, Pages 70-73 and 78-80, which gave the decile ranking of significant duties by employees and employers. The activities to be learned on the job based on employees' and employers' judgments comprise (1) those activities in Tables XIII and XIV, Pages 44-52 and 57-64, which were not included in the significant duties; and (2) those activities in Tables XV and XVI, Pages 70-73 and 78-80, that were not selected to be taught in school.

For each of the duties to be learned on the job, the ratio of job mentions to total mentions was worked out. Tables XX and XXI, Pages 104-112, were constructed. The rank of each duty is given in the column headed "Rank." In the "Frequency" column in the employees' table is given the frequency of performance of each duty and in the employers' table, the frequency of mention. In the "Decile" column is given the decile ranking of each activity. In the column headed "School" is given the number of votes advocating learning the activity in school. In the column headed "Job" is given





the number of votes in favor of learning the activity on the job. In the column headed "School-Job" is given the number of votes in favor of learning the activity in school and on the job. In the column indicated by " $\frac{J}{S+J+SJ}$ " is given the percentage that the number of job mentions is of the total mentions. The duties on this table are presented according to the original classification of the duties on the check lists, Schedules B and C, Pages 192-196 and 197-199.

Selection of Activities to Be Learned on the Job

In selecting the duties to be learned on the job, the following points were taken into consideration: (1) decile rank of each duty; (2) frequency, or infrequency, of performance and mention; (3) number of votes advocating learning the activity on the job; (4) per cent in favor of learning the activity on the job. Some of the duties ranking high in performance and others ranking low in performance were included in this table. Some duties receiving votes in favor of being learned in school and others in favor of being learned on the job were included. For example, "Order Supplies for the Office" ranks in the first decile and was included in this table because the votes were in favor of learning the duty on the job (by both employees and employers). On the other hand, "Type from Dictating Machine" ranks in the seventh decile with votes in favor





TABLE XX. DUTIES THAT CAN BE LEARNED ON THE JOB  
BASED ON EMPLOYEES' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{J}{S+J+SJ}$
	<u>Keep Books and Ledgers:</u>						
59.5	Post Salesmen's Commissions .	19	6	3	7	9	92
	<u>Stenographic Duties:</u>						
63.5	Type from Dictating Machine .	16	6	9	2	5	13
69.5	Shave Dictaphone Records. . .	7	7	3	3	1	43
95.5	Transcribe Minutes of Meetings . . . . .	3	9	0	3	0	100
95.5	Take Down Minutes of Meetings in Shorthand . . . . .	3	9	0	3	0	100
	<u>Clerical Duties:</u>						
7	Check Bills and Invoices. . .	86	1	14	40	32	47
11.5	Order Supplies for Office . .	80	2	8	58	14	74
17.5	Pay Bills . . . . .	72	2	9	43	20	60
29	Clean Files . . . . .	55	3	6	34	15	62
32.5	Check Credits on Customers. .	53	3	6	34	13	64
35.5	Record Invoices . . . . .	52	4	10	23	19	44
37.5	Make List of Employees' Annual Wages, Send Copy to Government, and Give Each Employee a Copy of His Report . . . . .	48	4	6	33	9	69
39.5	Order Merchandise . . . . .	46	4	5	32	9	70
41.5	Cash Money Drawer and Clear Cash Register. . . . .	43	4	4	26	13	61
49	Record New Employees. . . . .	38	5	4	29	5	76
51	Make Out Separation Notices .	30	5	1	25	4	84



TABULAR STATE OF NEW YORK  
 BASED ON EMPLOYERS' JUDGMENTS

Year	Duties	Elementary	Decide	Footed	col	col-looked
31	Make Out Registration Notices . . . . .	30	5	1	35	4
32	Record New Employees . . . . .	30	5	4	30	3
33	Cash Money Order and Clear Cash Register . . . . .	45	4	4	35	13
34	Order Merchandise . . . . .	40	4	5	32	9
35	Report . . . . .	40	4	5	32	9
36	Employee a Copy of His Annual Wages, Send Copy to Government, and Give Each Employee a Copy of His Report . . . . .	40	4	5	32	9
37	Make List of Employees					
38	Record Invoices . . . . .	52	4	10	33	19
39	Check Credits on Customers . . . . .	55	3	3	34	13
40	Clear Bills . . . . .	55	3	3	34	13
41	Pay Bills . . . . .	72	3	3	42	30
42	Order Supplies for Office . . . . .	80	3	3	32	14
43	Check Bills and Invoices . . . . .	80	1	14	40	32
44	Classical Duties:					
45	Take Down Minutes of Meetings in Courtroom . . . . .	3	3	0	3	0
46	Transcribe Minutes of Meetings in . . . . .	3	3	0	3	0
47	Shave Dictation Records . . . . .	7	7	3	3	1
48	Type from Dictation Machine . . . . .	18	3	3	3	5
49	Stenographic Duties:					
50	Post Salomon's Commission . . . . .	18	3	3	7	9
51	Keep Books and Ledgers:					

TABLE XX. (Continued) DUTIES THAT CAN BE LEARNED ON THE JOB  
BASED ON EMPLOYEES' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{J}{S+J+SJ}$
57	Look Up Dates for Shipping Merchandise. . . . .	22	6	2	18	2	82
58	Assemble Orders and Attach Bills of Lading. . . . .	20	6	3	13	4	65
59.5	Receive and Record Cash of Delivery Truck Drivers . .	19	6	1	15	3	79
61.5	Operate Addressograph . . . .	17	6	7	7	3	41
73.5	Assemble Case Records. . . . .	6	7	0	4	2	67
78.5	Look Up Records of Different Estates. . . . .	5	7	0	5	0	100
78.5	Take Inventory. . . . .	5	8	0	5	0	100
86.5	Put Up Paper Samples. . . . .	4	8	0	4	0	100
86.5	Assemble Slips Recording Mer- chandise Sent Out on Approval . . . . .	4	8	0	4	0	100
86.5	Prepare Monthly Bills from Ledger . . . . .	4	9	0	4	0	100
86.5	Mail Monthly Statements . . .	4	9	0	4	0	100
95.5	Make Out All Invoices . . . .	3	9	0	0	3	0
95.5	Correct Prices on Orders and Make Extensions. . . . .	3	9	0	3	0	100
101.5	Keep Perpetual Inventory. . .	2	10	0	2	0	100
102.5	Keep Cash Received Book . . .	2	10	0	0	2	0
102.5	Keep Cash Paid Out Book . . .	2	10	0	0	2	0
102.5	Post Cash Received and Cash Paid Book. . . . .	2	10	0	0	2	0



TABLE XX. (Continued) DUTIES THAT CAN BE LEARNED ON THE JOB  
 BASED ON RESEARCH, 1950-1951

Job	DUTIES	General	Specific	Location	Cost	Time-keeping
102.3	Post Cash Received and Cash Paid Book . . . . .	2	10	0	0	2
102.3	Post Cash Received and Cash Paid Book . . . . .	2	10	0	0	2
102.3	Post Cash Received Book . . . . .	2	10	0	0	2
102.3	Post Cash Paid Book . . . . .	2	10	0	0	2
102.3	Keep Perpetual Inventory . . . . .	2	10	0	0	2
102.3	Correct Prices on Orders and Make Estimates . . . . .	2	2	0	0	0
102.3	Make Out All Invoices . . . . .	2	2	0	0	2
102.3	Mail Monthly Statements . . . . .	2	2	0	0	2
102.3	Prepare Monthly Bills from Ledger . . . . .	2	2	0	0	2
102.3	Approval . . . . .	2	2	0	0	2
102.3	Checklist Sent Out on Assembly Signs Recording Method . . . . .	2	2	0	0	2
102.3	Put Up Paper Samples . . . . .	2	2	0	0	2
102.3	Take Inventory . . . . .	2	2	0	0	2
102.3	Recheck . . . . .	2	2	0	0	2
102.3	Look Up Records of Inventory . . . . .	2	2	0	0	2
102.3	Assemble Case Records . . . . .	2	2	0	0	2
102.3	Operate Addressograph . . . . .	2	2	0	0	2
102.3	Delivery Truck Drivers . . . . .	2	2	0	0	2
102.3	Receive and Record Cash of . . . . .	2	2	0	0	2
102.3	Assemble Orders and Attach Bills of Lading . . . . .	2	2	0	0	2
102.3	Look Up Rates for Shipping Merchandise . . . . .	2	2	0	0	2

TABLE XX. (Continued) DUTIES THAT CAN BE LEARNED ON THE JOB  
BASED ON EMPLOYEES' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{J}{S+J+SJ}$
106.5	Credit Checks Received for Settling Estates . . . . .	1	10	0	1	0	100
106.5	Record Probate Records for Settling Estates . . . . .	1	10	0	1	0	100
106.5	Figure Inventory Costs. . . . .	1	10	0	1	0	100
107.5	Prepare Invoices from Packing Slips, Orders, etc. . . . .	1	10	0	0	1	0
107.5	Keep Cash Book. . . . .	1	10	0	1	0	100
	<u>Type from Copy:</u>						
54.5	Checks. . . . .	27	6	8	14	5	52
61.5	Minutes of Meetings . . . . .	17	6	6	10	1	59
66	Articles, Manuscripts . . . . .	9	7	0	5	4	56
69.5	Medical Records . . . . .	7	7	1	3	3	43
78.5	Case Histories. . . . .	5	8	0	3	2	60
86.5	Registration Cards. . . . .	4	8	1	3	0	75
95.5	Profit and Loss Statement . . . . .	3	9	0	0	3	0
95.5	Balance Sheet . . . . .	3	9	0	0	3	0
101.5	Receiving Report on Car of Paper. . . . .	2	10	0	2	0	100
106.5	Court Order on Estate . . . . .	1	10	0	1	0	100
	<u>Operate Duplicating Machines:</u>						
86.5	Hectograph. . . . .	4	8	1	1	2	25
	<u>Mailing Duties:</u>						
26	Take Mail to Post Office. . . . .	61	3	2	55	4	90







TABLE XX. (Continued) DUTIES THAT CAN BE LEARNED ON THE JOB  
BASED ON EMPLOYEES' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{J}{S+J+SJ}$
46.5	Get Mail at Post Office . . .	40	5	2	35	3	88
	<u>Meeting and Handling People:</u>						
17.5	Hear Complaints in Office and Over Telephone . . . . .	72	2	2	51	19	71
20.5	Keep Employer Reminded of Engagements . . . . .	64	2	4	49	11	77
27.5	Make Engagements and Appoint- ments . . . . .	58	3	4	36	18	62
86.5	Consultation in Regard to Settling Estates . . . . .	4	8	0	4	0	100
	<u>Duties Peculiar to Banking Concerns:</u>						
67	Post Checks and Deposits . . .	8	7	0	7	1	88
73.5	Arrange and Post Checks from Clearing House . . . . .	6	7	0	5	1	83
73.5	Prepare Statements of Check- ing Accounts . . . . .	6	7	0	6	0	100
73.5	Figure Interest on Savings Accounts . . . . .	6	7	1	5	0	83
73.5	Prepare Club Cards for Fol- lowing Day . . . . .	6	7	1	5	0	83
78.5	Figure Service Charges on Checking Accounts . . . . .	5	8	0	4	1	80
78.5	Balance Club Cash . . . . .	5	8	1	4	0	80
86.5	Arrange Checks for Clearing House . . . . .	4	8	0	3	1	75
86.5	Post Service Charges on Ledger Cards . . . . .	4	8	1	3	0	75



TABLE XX. (Continued) DUTIES THAT CAN BE PERFORMED BY THE JCS  
BASED ON EMPLOYER'S DUTIES

Job	DUTIES	Elementary	Active	Leader	Dep.	Det.-Leader
46.5	Get Mail at Post Office . . .	40	5	2	35	3
47.5	Meeting and Handling People: Get Complaints in Office and Over Telephone . . .	75	2	2	61	10
50.5	Keep Employer's Records of Engagements . . .	55	2	4	48	11
57.5	Take Engagements and Appoint- ments . . .	35	3	4	38	18
58.5	Consultation in regard to Battling Rates . . .	4	8	0	4	0
67	Knives Reclassified as Commodities: Post Checks and Deposits . . .	5	7	0	7	1
73.5	Arrange and Post Checks from Clearing House . . .	5	7	0	5	1
75.5	Prepare Statements of Check- ing Accounts . . .	5	7	0	5	0
75.5	Figure Interest on Savings Accounts . . .	5	7	1	5	0
75.5	Prepare Club Cards for Vol- untarily Pay . . .	5	7	1	5	0
75.5	Figure Service Charges on Checking Accounts . . .	5	8	0	5	1
78.5	Balance Club Cash . . .	5	8	1	4	0
80.5	Arrange Checks for Clearing House . . .	4	8	0	5	1
80.5	Post Service Charges on Ledger Cards . . .	4	8	1	5	0

TABLE XX. (Continued) DUTIES THAT CAN BE LEARNED ON THE JOB  
BASED ON EMPLOYEES' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{J}{S+J+SJ}$
86.5	Draw Club Cards for Posting .	4	9	0	4	0	100
86.5	Post Ledger Cards of Clubs. .	4	9	0	4	0	100
95.5	Write Daily Statement . . . .	3	9	0	3	0	100
86.5	Shave Photophone Records. .	3	7	7	3	0	82
86.5	Classical Relations						
86.5	Order Supplies for office .	4	2	0	37	14	80
86.5	Make List of Employees' Wages Send Copy to Government, and Give Each Employee a Copy of His Report . . . .	61	8	13	22	14	46
86.5	Check Credits on Customers. .	42	4	8	24	19	80
86.5	Pay Bills . . . . .	42	4	7	40	15	74
86.5	Class Files . . . . .	42	5	8	22	10	59
86.5	Record New Employees. . . .	34	5	8	20	8	59
86.5	Check Money Drawer and Clear Cash Register. . . . .	32	5	8	13	12	80
86.5	Order Merchandise . . . . .	28	5	4	14	7	78
86.5	Make Out Separation Policies .	12	5	1	13	9	87
86.5	Assemble Orders and Attach Bill of Lading. . . . .	22	5	4	8	9	45
86.5	Look up Taxes for Shipping Merchandise. . . . .	28	7	2	11	4	85
86.5	Receive and Record Cash of Delivery Truck Drivers .	16	7	7	2	4	62
86.5	Operate Addressograph . . . .	14	7	0	3	0	32



TABLE XX. (Continued) DUTIES THAT CAN BE LEARNED ON THE JOB  
BASED ON REPLYERS' JUDGMENTS

Rank	DUTIES	Learned by experience	Learned by practice	Learned by study	Learned by doing	Learned by reading
80.5	Draw Club Cards for Posting .	4	3	0	4	0
82.5	Post Ledger Cards of Clubs .	4	3	0	4	0
82.5	Write Daily Statement . . . .	2	3	0	2	0

TABLE XXI. DUTIES THAT CAN BE LEARNED ON THE JOB  
BASED ON EMPLOYERS' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{J}{S+J+SJ}$
	<u>Keep Books and Ledgers:</u>						
61	Post Salesmen's Commissions .	16	7	6	1	9	6
	<u>Stenographic Duties:</u>						
58	Type from Dictating Machine .	40	7	16	2	2	10
64	Shave Dictaphone Records. . .	9	7	7	2	0	22
	<u>Clerical Duties:</u>						
15.5	Order Supplies for office . .	56	2	6	37	13	66
20.5	Make List of Employees' Wages, Send Copy to Government, and Give Each Employee a Copy of His Report . . . .	54	3	13	25	16	46
37.5	Check Credits on Customers. .	45	4	8	24	13	53
37.5	Pay Bills . . . . .	45	4	7	20	18	44
41	Clean Files . . . . .	41	5	9	22	10	54
48	Record New Employees. . . . .	34	6	5	20	9	59
49	Cash Money Drawer and Clear Cash Register. . . . .	32	6	5	16	11	50
54	Order Merchandise . . . . .	25	6	4	14	7	56
55	Make Out Separation Notices .	22	6	1	13	8	59
56.5	Assemble Orders and Attach Bills of Lading. . . . .	21	6	4	9	8	43
60	Look Up Dates for Shipping Merchandise. . . . .	17	7	2	11	4	65
62.5	Receive and Record Cash of Delivery Truck Drivers . .	14	7	1	9	4	64
62.5	Operate Addressograph . . . .	14	7	6	5	3	43



TABLE XII. DUTIES THAT CAN BE LEARNED ON THE JOB  
BASED ON EMPLOYERS' COMMENTS

rank	DUTIES					percent	rank	percent	rank
62.5	Operate Addressograph . . . . .	14	7	3	2	2	4	2	4
62.5	Receive and Record Cash at Delivery Truck Drivers . . . . .	14	7	1	2	4	3	4	3
63	Work on . . . . .	17	7	3	12	4	4	3	4
63	Look up Rates for Shipping Bills of Lading . . . . .	21	3	4	3	4	4	3	4
63.5	Assemble Trunk and Station Bills of Lading . . . . .	21	3	4	3	4	4	3	4
63	Make Out Reception Tickets . . . . .	22	3	1	13	3	4	3	4
64	Order Merchandise . . . . .	23	3	4	14	7	3	4	3
64	Can Register . . . . .	23	3	4	14	7	3	4	3
64	Get Money From and Give Cash Register . . . . .	23	3	4	14	7	3	4	3
65	Record New Employees . . . . .	24	3	2	20	9	3	2	20
65	Clean Mins . . . . .	41	3	2	22	10	3	2	22
65.5	Pay Bills . . . . .	43	4	7	20	10	4	7	20
65.5	Check Orders on Customers . . . . .	43	4	8	24	12	4	8	24
66	Copy of the Report . . . . .	44	4	13	23	13	4	13	23
66	Send Copy to Government, and Give Each Employee a Copy of the Report . . . . .	44	4	13	23	13	4	13	23
66.5	Make List of Employees' Names and Give to Government, and Give Each Employee a Copy of the Report . . . . .	44	4	13	23	13	4	13	23
67	Order Supplies for Office . . . . .	46	4	3	27	13	4	3	27
67.5	Answer Letters . . . . .	46	4	7	27	13	4	7	27
68	Operate Addressograph . . . . .	46	4	7	27	13	4	7	27
68	Copy from Rotating Machine . . . . .	46	4	13	27	13	4	13	27
68	Operate Addressograph . . . . .	46	4	7	27	13	4	7	27
68	Make Copies and Letters . . . . .	46	4	7	27	13	4	7	27

TABLE XXI. (Continued) DUTIES THAT CAN BE LEARNED ON THE JOB  
BASED ON EMPLOYERS' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{J}{S+J+SJ}$
65.5	Assemble Case Records . . . . .	8	7	4	2	2	25
65.5	Assemble Slips Recording Merchandise Sent Out on Approval . . . . .	8	8	1	7	0	88
68.5	Look Up Records of Different Estates. . . . .	7	8	0	4	3	57
77.5	Credit Checks Received for Settling Estates . . . . .	4	8	1	1	2	25
84.5	Put Up Paper Samples. . . . .	3	9	0	3	0	100
89.5	Record Probate Records for Settling Estates . . . . .	1	10	0	1	0	100
89.5	Prepare Invoices from Packing Records. . . . .	1	10	0	1	0	100
	<u>Type from Copy:</u>						
68.5	Case Histories. . . . .	7	8	3	2	2	29
68.5	Registration Cards. . . . .	7	8	2	1	1	14
70	Medical Records . . . . .	6	8	2	2	2	33
71	Court Order on Estate . . . . .	5	8	2	3	0	60
89.5	Receiving Report on Car of Paper. . . . .	1	10	0	1	0	100
	<u>Operate Duplicating Machines:</u>						
59	Hectograph. . . . .	18	7	11	4	3	22
	<u>Mailing Duties:</u>						
27.5	Take Mail to Post Office. . . . .	51	3	6	41	4	80
39.5	Get Mail at Post Office . . . . .	43	5	3	38	2	88



TABLE XII. (Continued) DUTIES THAT CAN BE LEARNED ON THE JOB  
BASED ON ESTIMATED JUDGMENTS

Job	DUTIES	Months	Years	Months	Years	Months	Years
66.5	Assembly Case Records . . . . .	8	7	4	3	2	2
67.5	Assembly Case Records - Assembly Case Records on Assembly Case Records . . . . .	8	8	1	7	2	2
68.5	Look Up Records of Interest Records . . . . .	7	8	0	4	3	3
69.5	Grand Jurors Received for Records . . . . .	4	8	1	1	2	2
70.5	Let Up Paper Samples . . . . .	3	8	0	3	0	0
71.5	Records of the Records for Records . . . . .	1	10	0	1	0	1
72.5	Prepare Invoices from Machine Records . . . . .	1	10	0	1	0	0
<u>Types from Copy:</u>							
73.5	Case Histories . . . . .	7	8	3	2	2	2
74.5	Registration Cards . . . . .	7	8	2	1	1	1
75	Medical Records . . . . .	8	8	2	2	2	2
76	Court Order on Writs . . . . .	8	8	2	2	2	2
77.5	Receiving Report on Car of Report . . . . .	1	10	0	1	0	0
<u>Operate Duplicating Machine:</u>							
78	Photograph . . . . .	10	7	11	4	2	2
<u>Mailing Duties:</u>							
79.5	Take Mail to Post Office . . . . .	81	8	8	41	4	0
80.5	Get Mail at Post Office . . . . .	43	8	8	38	2	2

TABLE XXI. (Continued) DUTIES THAT CAN BE LEARNED ON THE JOB  
BASED ON EMPLOYERS' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{J}{S+J+SJ}$
	<u>Meeting and Handling People:</u>						
8.5	Hear Complaints in Office and Over Telephone . . . . .	59	1	9	30	20	51
12.5	Make Engagements and Appoint- ments. . . . .	58	2	13	27	18	47
14	Keep Employer Reminded of Engagements. . . . .	57	2	9	30	18	52
86	Consultation in Regard to Settling Estates . . . . .	2	10	0	2	0	100
	<u>Duties Peculiar to Banking Concerns:</u>						
77.5	Arrange Checks for Clearing House. . . . .	4	8	0	4	0	100
77.5	Post Service Charges on Ledger Cards . . . . .	4	8	0	4	0	100
77.5	Post Checks and Deposits. . .	4	9	0	3	1	75
77.5	Prepare Statements of Check- ing Accounts . . . . .	4	9	0	3	1	75
77.5	Figure Interest on Savings Accounts . . . . .	4	9	0	1	3	25
77.5	Prepare Club Cards for Fol- lowing Day . . . . .	4	9	0	4	0	100
77.5	Draw Club Cards for Posting .	4	9	0	3	1	75
77.5	Balance Club Cash . . . . .	4	9	0	3	1	75
77.5	Post Ledger Cards of Clubs. .	4	9	0	4	0	100
77.5	Figure Service Charges on Checking Accounts. . . . .	4	9	0	4	0	100



TABULARY (Continued) DUTIES THAT CAN BE LEARNED ON THE JOB  
BASED ON EMPLOYERS' JUDGMENTS

UNIT	DUTIES	Frequency	Months	Years	Months	Years
6.5	Meeting and handling people Meet Complaints in Office and Over Telephone . . . . .	30	1	3	30	3
12.5	Make Inquiries and Appoint- ments . . . . .	30	2	12	30	4
14	Keep Highway Restricted of Inquiries . . . . .	30	2	8	30	3
20	Consultation in regard to Settling Matters . . . . .	2	10	0	2	0
	<u>Duties Peculiar to Banking</u> <u>General:</u>					
77.5	Arrange Checks for Clearing House . . . . .	4	8	0	4	0
77.5	Post Service Charges on Ledger Cards . . . . .	4	8	0	4	0
77.5	Post Checks and Deposits . . . . .	4	8	0	2	1
77.5	Prepare Statements of Check- ing Accounts . . . . .	4	8	0	3	1
77.5	Figure Interest on Savings Accounts . . . . .	4	8	0	1	3
77.5	Prepare Club Cards for Fol- lowing Day . . . . .	4	8	0	4	0
77.5	Draw Club Cards for Posting . . . . .	4	8	0	3	1
77.5	Balance Club Card . . . . .	4	8	0	3	1
77.5	Post Ledger Cards of Clubs . . . . .	4	8	0	4	0
77.5	Figure Service Charges on Checking Accounts . . . . .	4	8	0	4	0

TABLE XXI. (Continued) DUTIES THAT CAN BE LEARNED ON THE JOB  
BASED ON EMPLOYERS' JUDGMENTS

Rank	DUTIES	Frequency	Decile	School	Job	School-Job	$\frac{J}{S+J+SJ}$
77.5	Write Daily Statement . . . . .	4	9	0	3	1	75
84.5	Arrange and Post Checks for Clearing House . . . . .	3	10	0	3	0	100





of learning the activity in school. It was included in this table, however, because of the infrequency of mention and performance, and because it was confined to use in only a few of the businesses surveyed. Again, "Type Medical Records," which ranks in the sixth decile, received votes in favor of being learned in school, but was included in this table because of its infrequency of performance and mention, and because it is a duty pertaining to only a few types of businesses.

### Conclusions

1. The duties to be learned on the job comprise those duties that pertain to a large extent to individual types of businesses.
  2. In spite of the fact that most of these duties can be learned on the job, there are a few for which instruction on the acquaintanceship level might be given in school. They were included in these tables instead because of the ease with which they can be performed. "Check Bills and Invoices," and "Record Invoices" belong to this class. The majority of single votes by employees advocate job learning. Employers, however, rank each so high and slightly favor school training that both duties ranked by them were included in the school training table,
- Pages 95-96.





3. The dictaphone is confined to use in such a few offices that to teach the activity in school would be an expensive proposition. It is a duty that an individual can learn on the job. If facilities are available, an acquaintanceship instruction could be given for this activity.
4. Such minor duties as "Type Profit and Loss Statement," "Type Balance Sheet," "Type Checks," and "Type Minutes of Meetings," because of their infrequency of performance were placed in these tables; but again a small amount of instruction in the school on each activity would not be amiss.
5. The school should not attempt to give instruction in such specialized duties as "Cash Money Drawer and Clear Cash Register," "Put Up Paper Samples," or "Look Up Dates for Shipping Merchandise." These duties are of such a nature that they must be learned on the job.
6. All the specialized duties pertaining to banks cannot be taught in school, and, therefore, the individual must acquire his knowledge on the job.
7. There are a number of clerical duties that can be learned on the job and some "Type from Copy Duties" also come in this classification. The best the school can do in these cases is to give the pupils a good training and background in the clerical and typing





training that it can give, so that the pupils can easily adapt themselves to correlated activities when they get their first job.

#### Employees' Judgments

Of the 188 returns from employees, only 706 of the personality trait rankings could be used. The remainder, 118, were either not completely filled out or were not filled out at all. Some merely put check marks in the parentheses without attempting to rank them in the manner suggested; others ranked only a few and did not bother with the rest.

It is admitted that ranking the importance of 35 personality traits is no easy task, and it is debatable whether a trait ranked as 27 would be more important than one ranked as 28 or less important than one ranked as 29. However, it was not the purpose of this study to get the individual importance of each trait, but rather to get from the employees' and employers' judgments the most important group and the least important group. From these data teachers would be able to find out which traits they should try to develop more than others in the pupils in their classes.

From the completely and correctly filled personality trait ranking sheets, the votes given by the employees on each trait for each rank from 1 to 35 were tabulated. Table XIII presents these data.





## CHAPTER IX

### PERSONALITY TRAITS

#### Employees' Judgments

Of the 168 returns from employees, only 153 of the personality trait rankings could be used. The remainder, 15, were either not correctly filled out or were not filled out at all. Some merely put check marks in the parentheses without attempting to rank them in the manner suggested; others ranked only a few and did not bother with the rest.

It is admitted that ranking the importance of 32 personality traits is no easy task, and it is debatable whether a trait ranked as 27 would be more important than one ranked as 26 or less important than one ranked as 28. However, it was not the purpose of this study to get the individual importance of each trait, but rather to get from the employees' and employers' judgments the most important group and the least important group. From these data teachers would be able to find out which traits they should try to develop more than others in the pupils in their classes.

From the completely and correctly filled personality trait ranking sheets, the votes given by the employees to each trait for each rank from 1 to 32 were tabulated. Table XXII presents these data.







TABLE XXII. RANKING OF TRAITS BY EMPLOYEES

Trait No.	Traits	Rank																																Total Votes	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
1	Accuracy. . . . .	84	28	14	10	2		3	3	2			2			3	2	1					1	2											
2	Adaptability. . . .	5	7	3	16	7	8	4	6	6	4	7	4	5	6	5	4	5	3	4	7	5	5	3	5	1	1	5		3	2	3	4	153	
3	Alertness . . . . .	3	3	9	7	5	9	7	6	6	6	4	4	8	4	6	10	15	6	5	3	5	6	2	2	2	3	2	1	1	3	2	2	153	
4	Ambition. . . . .	12	13	14	14	13	17	5	5	2	8	1	6	2	2	4	3	4	2	2	5	5	3	3	2	2	2	1	1	2		1		153	
5	Concentration . . .	2	7	4	17	6	10	16	4	5	2	9	5	2	13	4	2	9	7	3	2	2	5	3	1	1	2	2	2	1	1	2	2	153	
6	Cooperativeness . .	5	4	4	6	11	10	5	7	7	4	14	4	10	6	6	9	5	7	3	6	5	4	5	2	2		1	1					153	
7	Courtesy. . . . .	5	5	4	7	8	15	6	9	6	8	5	3	4	4	2	6	7	6	9	2	6	1	6	2	2	4	3	3	1	2	1	1	153	
8	Discretion. . . . .	5	3	8	5	8	3	5	10	9	5	6	5	5	6	3	3	5	14	9	2	5	3	2	3	3	1	3	2	4	1	3	4	153	
9	Efficiency. . . . .	17	25	19	8	13	8	13	6	8	3	3	3	5	2		5	1	5	2	1	1	1	2	2	2					1			153	
10	Enthusiasm. . . . .	2		2	2	2	3	3	9	3	5	3	8	4	4		4	3	7	5	5	6	21	5	7	9	5	7	3	2	6	8		153	
11	Even Temper . . . .			1		1	3		5		4	2	1	6	5	5	3	3	4	10	5	4	8	7	6	6	7	8	4	4	17	12	12	153	
12	Faithfulness. . . .	1	5	4	6	8	5	4	11	4	6	10	9	9	3	17	2	3	3	3	5	4	3	7	2	10	3		1	3	1		1	153	
13	Humor . . . . .		1							4	4	3	2	5	2	2	1	1	2	1	2	3	6	3	2	7	8	6	7	9	8	21	43	153	
14	Independence. . . .		2	3		4	1	2	4	3	5	5	8	4	6	6	5	16	7	4	6	5	5	3	8	6	2	8	5	4	6	7	3	153	
15	Initiative. . . . .	3	4	5	3	11	16	5	8	4	5	6	8	9	8	1	6	7	4	4	4	2	6	4	2		6	1	6	1	1	3		153	
16	Intelligence. . . .	11	11	21	6	5	14	7	1	7	4	3	7	4	3	6	3	3	1	5	6	3	1	1	2	2		3	2	3	4	2	2	153	
17	Judgment. . . . .		2	1	2	4	4	4	5	18	8	4	7	6	12	5	9	3	10	2	7	1	2	5	7	6	6	1	3	3	2	3	1	153	
18	Loyalty . . . . .	3	4	3	7	6	5	5	4	4	4	6	6	6	9	13	9	4	3	4	6	5	5	2	5	1	3	4	5	5	4	2	1	153	
19	Memory . . . . .		3	3	4	6	5	8	2	8	8	11	3	4	5	6	15	7	4	6	7	1	2	5	6	6	5	1	5	5		1	1	153	
20	Objectivity . . . .	1								2	1	4	2	3	2	5	2	4	4	7	5	7	5	7	10	6	11	8	8	10	8	20	11	153	
21	Originality . . . .							2	1		1	2	3	5	4	3	5	5	5	2	10	5	3	5	4	10	3	8	9	10	25	9	14	153	
22	Perseverance. . . .			3	1	1	2	3	5	5	7	9	1	3	3	9	6	4	8	7	4	11	8	1	16	6	8	5	2	5	2	6	2	153	
23	Personality . . . .	23	9	13	9	10	5	9	4	4	7	4	4	6	2	3	3	4	2	5	1	5	2	2	3	2	2	1	3	3	2	1		153	
24	Poise . . . . .	2	5	2	2	2	5	3	2	5	3	9	1	2	2	3	5	2	9	4	3	9	4	21	8	8	7	7	9	3	5	1		153	
25	Quickness . . . . .		3		2		1	3	7	6	4	5	6	2	3	3	6	3	5	3	8	3	4	9	6	7	19	9	10	4	5	3	4	153	
26	Resourcefulness . .	2		1	3	2		1	4	2	3	2	2	4	4	3	2	6	4	5	6	10	8	9	8	7	7	9	11	5	17	2	4	153	
27	Responsibleness . .		3	5	7	4	4	9	4	9	5	5	6	18	6	4	8	3	6	4	6	10	3	3	2	3	2	6		5	2	1		153	
28	Systematic. . . . .	1	3		5	3	3	6	6	3	9	2	6	5	7	6	4	5	8	4	6	4	8	4	7	5	7	1	6	1	3	15	153		
29	Tact. . . . .		1	2		4	3	5	4	7	4	6	3	3	7	6	5	5	3	13	7	5	2	8	3	6	5	10	16	3	4	3	1	153	
30	Thoughtfulness. . .								2		2	1	1	1	1	4	2	6	1	3	5	4	7	8	5	3	6	10	11	25	15	13	13	5	153
31	Unselfishness . . .		1	2	3	3	1	3	2	5	2		2	4	5	4	2	4	3	3	2	4	3	8	5	9	6	8	9	22	13	6	9	153	
32	Versatility . . . . .		4	3	2	3	6	5	5	2	5	6		2	2	2	1	1	6	3	3	3	3	7	5	4	8	8	4	5	11	12	21	153	







Accuracy was ranked first by 84 employees, second by 28, third by 14, fourth by 10, fifth by 2, and so on across the table. The votes for the other traits are read in a similar manner.

The votes given to each trait as shown in Table XXII, Page 117, were then weighted by the inverse ratio method of weighting. This was done to give more weight to the top-ranking traits and to make it possible to more accurately rank the traits according to their importance. Table XXIII, Page 119, was compiled after each of the votes to each trait had been weighted.

This table reveals the top-ranking traits judged by office workers in small communities. Accuracy, with the highest weighting of 2,688, is decidedly considered the most important trait. The trait ranking second, efficiency, has a weight of only 775. There is not such a difference in the inverse ratio weighting of the other traits as there is between those of first and second rank. Initiative and judgment ranked the same--eighth--and resourcefulness and unselfishness ranked the same--twenty-ninth.

As it is difficult to justify the importance of one trait above the one immediately following it as the traits appear in Table XXIII, Page 119, it was decided to break up the traits into groups. To state that a





TABLE XXIII. TRAITS LISTED IN ORDER OF IMPORTANCE  
EMPLOYEES' JUDGMENTS

Trait No.	TRAITS	Rank Order	Inverse Ratio Weighting
1	Accuracy. . . . .	1	2688
9	Efficiency. . . . .	2	775
23	Personality . . . . .	3	736
16	Intelligence. . . . .	4	630
5	Concentration . . . . .	5	493
2	Adaptability. . . . .	6	464
4	Ambition. . . . .	7	459
15	Initiative. . . . .	8.5	432
17	Judgment. . . . .	8.5	432
7	Courtesy. . . . .	10	405
27	Responsibleness . . . . .	11	360
6	Cooperativeness . . . . .	12	308
12	Faithfulness. . . . .	13	306
3	Alertness . . . . .	14	270
19	Memory. . . . .	15	255
8	Discretion. . . . .	16	250
18	Loyalty . . . . .	17	234
10	Enthusiasm. . . . .	18	231
24	Poise . . . . .	19	210
28	Systematic. . . . .	20	207
11	Even Temper . . . . .	21	200
22	Perseverance. . . . .	22	198
29	Tact. . . . .	23	182
25	Quickness . . . . .	24	175
14	Independence. . . . .	25	168
32	Versatility . . . . .	26	162
21	Originality . . . . .	27	130
30	Thoughtfulness. . . . .	28	125
26	Resourcefulness . . . . .	29.5	120
31	Unselfishness . . . . .	29.5	120
13	Humor . . . . .	31	100
20	Objectivity . . . . .	32	98



TABLE XXIII. TRAITS LISTED IN ORDER OF IMPORTANCE  
EMPLOYERS' JUDGMENTS

Trait No.	TRAITS	Rank Order	Inverse Ratio Weighting
1	Accuracy . . . . .	1	2838
2	Efficiency . . . . .	2	275
23	Personality . . . . .	3	236
16	Intelligence . . . . .	4	630
5	Concentration . . . . .	5	423
3	Adaptability . . . . .	6	464
4	Ambition . . . . .	7	486
15	Initiative . . . . .	8.5	432
17	Judgment . . . . .	8.5	432
7	Courtesy . . . . .	10	405
27	Responsableness . . . . .	11	380
6	Cooperativeness . . . . .	12	308
12	Faithfulness . . . . .	12	306
2	Alertness . . . . .	14	270
13	Memory . . . . .	15	255
8	Discretion . . . . .	16	260
18	Loyalty . . . . .	17	234
10	Enthusiasm . . . . .	18	231
24	Poise . . . . .	19	210
26	Systematic . . . . .	20	207
11	Even Temper . . . . .	21	200
22	Persistence . . . . .	22	196
28	Tact . . . . .	23	182
25	Optimism . . . . .	24	175
14	Independence . . . . .	25	168
32	Versatility . . . . .	26	162
21	Originality . . . . .	27	150
30	Thoroughness . . . . .	28	125
29	Resourcefulness . . . . .	29.5	120
31	Unselfishness . . . . .	29.5	120
13	Humor . . . . .	31	100
20	Objectivity . . . . .	32	98

group of traits is found to be more desirable than another group is more justifiable than that one trait is more important than another. Some agreement was expected between the employees and employers as to top and bottom groups. Those traits falling into the middle groups might indicate a difference of opinion, caused largely by the nature of the business in question, the special character of the duties performed, or the personalities of the employees and employers.

It was decided to use a grouping suggested by one of the employers to whom the check list was sent. He suggested four different groupings: (1) very important; (2) very necessary; (3) very desirable; and (4) not to be overlooked. Grouping of the personality traits under these main headings seemed rather appropriate, and, therefore, the scheme was adopted. Following this plan, then, Table XXIV, Page 121, was compiled.

The traits in Table XXIII, Page 119, were divided into four groups and the traits were presented in Table XXIV, Page 121, under the appropriate headings, as discussed above. The first group contains nine, as the last two traits, initiative and judgment, ranked the same in Table XXIII, and it was thought advisable to keep them within the same group. As the inverse ratio weighting of the two traits ranked them by a few points





TABLE XXIV. TRAITS PRESENTED ACCORDING  
TO GROUP CLASSIFICATION  
EMPLOYEES' JUDGMENTS

<u>Very Important</u>	<u>Very Desirable</u>
Accuracy	Enthusiasm
Efficiency	Poise
Personality	Systematic
Intelligence	Even Temper
Concentration	Perseverance
Adaptability	Tact
Ambition	Quickness
Initiative	Independence
Judgment	
	<u>Not to Be Overlooked</u>
<u>Very Necessary</u>	Versatility
Courtesy	Originality
Responsibleness	Thoughtfulness
Cooperativeness	Resourcefulness
Faithfulness	Unselfishness
Alertness	Humor
Memory	Objectivity
Discretion	
Loyalty	





nearer the trait ranking seventh than the trait ranking tenth, it was decided to include both traits in the first group. The second and third groups contain eight traits each, and the fourth, seven.

In the first group the employees place those traits which pertain largely to doing one's job well in order to succeed on it. The second and third groups contain mainly those traits which have to do with meeting and handling people and with one's duty to her employer. The "not to be overlooked" group consists of those traits of negligible value. Employees do not consider these traits as essential as the others, yet they are "not to be overlooked" by instructors.

#### Conclusions

1. Accuracy, with an inverse ratio weighting of 2,688, is considered by employees to be the "very important" trait an office worker should possess.
2. Other traits considered very important by employees are largely those which pertain to doing one's work. Such traits as efficiency, intelligence, concentration, adaptability, ambition, initiative, and judgment comprise this group.
3. Personality is considered one of the high ranking traits that an office worker should possess.
4. In the "very necessary" group of traits are found those traits which pertain to an employees' duty to





- her employer, such as loyalty, faithfulness, discretion, alertness, and responsibility.
5. Employees consider some of the traits which have to do with associating with others as "very necessary" and others as "very desirable." In the first group they include courtesy, and cooperativeness; in the next group, poise, even temper, and tact.
  6. In the second and third groups employees include those traits pertaining to doing one's work which are of minor importance. In the "very necessary" group are placed alertness and memory; in the "very desirable" group, enthusiasm, systematic, perseverance, quickness, and independence.
  7. Office workers do not consider versatility and originality very important traits for an office worker to possess, nor do they give much importance to thoughtfulness and unselfishness.
  8. Office workers also rank humor, resourcefulness, and objectivity as traits of negligible value.

#### Employers' Judgments

Tabulation of the personality trait ranking sheet returns from employers was carried out in a similar fashion as those received from employees. As was the case with the employees, some of the sheets returned by employers could not be used, as they were either incorrectly



- her employer, such as loyalty, faithfulness, dis-  
cretion, alertness, and responsibility.
5. Employees consider some of the traits which have to  
do with associating with others as "very necessary"  
and others as "very desirable." In the first group  
they include courtesy, and cooperativeness; in the  
next group, poise, even temper, and tact.
6. In the second and third groups employees include those  
traits pertaining to doing one's work which are of  
minor importance. In the "very necessary" group are  
placed alertness and memory; in the "very desirable"  
group, enthusiasm, systematic, perseverance, quick-  
ness, and independence.
7. Office workers do not consider versatility and  
originally very important traits for an office  
worker to possess, nor do they give much importance  
to thoughtfulness and unselfishness.
8. Office workers also rank humor, resourcefulness, and  
objectivity as traits of negligible value.

#### Employers' Judgments

Tabulation of the personality trait ranking sheet  
returns from employers was carried out in a similar  
fashion as those received from employees. As was the  
case with the employees, some of the sheets returned by  
employers could not be used, as they were either incorrect

filled out, or not filled out at all. Of the 78 returns, 11 (15%) could not be used. Some of the employers grouped the traits into three or four groups. One of these suggestions has been adopted for use in this study. Three employers added one more trait to the list, feeling that none of the 32 traits listed was synonymous to them. Two employers suggested "Honesty," ranking it as of first importance, and another suggested "Integrity," ranking it as of first importance. If some of the 32 traits were looked at in a broad sense, they would include these newly suggested traits. For instance, loyalty and faithfulness contain some elements of honesty and integrity. Discretion also may be broadened in meaning to include elements of honesty and integrity.

The personality trait lists returned were tabulated and Table XXV was compiled, as shown on Page 125.

This table shows the number of votes given by the employers to each trait for the different ranks from 1 to 32. The votes were weighted by the inverse ratio method, as were the votes given the traits by the employees. The ranking of the traits after they had been weighted is shown in Table XXVI, Page 126.

Accuracy is placed first by employers, with an inverse ratio weighting of 864. The second trait in importance is intelligence with a weight of 480. There is quite a difference between the weight of the first-







TABLE XXV. RANKING OF TRAITS BY EMPLOYERS

Trait No.	Traits	Rank																																Total Votes			
		1.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32				
1	Accuracy. . . . .	27	11	4	6	3	2	4	3	2			1	2	2																			67			
2	Adaptability. . . .	3		1		3	3	9	1	1		2	14	4	2	2	2	2	2	1	2	1	3				1		1	2	3	1	1		67		
3	Alertness . . . . .	10	2	2	3	8	3	5			1	1		2	1	3	3	5	1	2	4	2	3	2	2	1								67			
4	Ambition. . . . .	1	13	9	4	4	2	5	1	3	1			4	2	1	2	1	2	1	3	2	1	1	1	1	1	3	2			1	1		67		
5	Concentration . . .			6	1	1			2	2	2	2	12	1	1	3	2	2	2	2	5	5	5		1	1	2				1		3		67		
6	Cooperativeness . .			1	10		4	2		13	3	3	2	2	3	2	2		3	2	4	4	1	3		1		1			1				67		
7	Courtesy. . . . .			3	5	12	4	1	9	1	9	1		3		1	2	4		2	1	1	1	2	1			1	1	1	1	1			67		
8	Discretion. . . . .	5	1	4		1	6	2	4		3	12	1	2	1	2	2	2	1	1	2	1	3	2	2	2	1		1	1	2	1			67		
9	Efficiency. . . . .	11	6	1	4	6	6	2	3	7	2	5	2	3	3	1		1		2		1	1												67		
10	Enthusiasm. . . . .	1		1		3		2	3	2	3				10	3	2	5	2	5	1	3		3	2	2	2	1	1	5		3	1	3		67	
11	Even Temper . . . .						1			1	2	6	1		1	1	6	2	2	2	1	2	2	8	3	3		1	3	5	2	10	2			67	
12	Faithfulness. . . .	2	4	7	2	3	2	7	2	2	2		12	6	3	1	1	1	3		2	3	1	1												67	
13	Humor . . . . .							2			4				2	5	2	1	1			2	1				1	1	2	6	6	12	19			67	
14	Independence. . . .		1	2		1				2		3	3	3	11	2	5	1	5	2		1			2	3	1	1	5		5	1	3	5			67
15	Initiative. . . . .	1	11	1	9	1	9	1	4	2	2	3	1	3	3	1	2	3	2	1		2		3								1	1			67	
16	Intelligence. . . .	15	6	11	4	1	2	3	1	1	2	2			2		4	2	1	3	2	1		1		1						1	1			67	
17	Judgment. . . . .		5	3	3	15	1	3		3	7	1	2	2		2	1		1	1	5	2	3		2			1	1		2	1				67	
18	Loyalty . . . . .	12	4	3	2	4	3	7	4	6	1	2		4	2			7		2		1	2			1										67	
19	Memory. . . . .					1	3		2	1		1	1	2	3	2		3	13	4	6	3	3		1	6	4	3	1	3	1					67	
20	Objectivity . . . . .				1	1	1	1	2	1				1		1	2	1	5		1	2	1	1	6	3	5	5	4	6	2	13	1			67	
21	Originality . . . . .	1						2	1	1	1	1	1	1	1	2	2	2	2	8		4	3		1	3	13	5	1	5	3	2	1			67	
22	Perseverance. . . .								4		5	16			1	3	1	1	2	3	2			2	2		8	2	4	1	3	1	3	1		67	
23	Personality . . . . .	4		7	13	1	3	3	2	7			6				1	2	2		1	1	2		1	1	1	2	4	1		2				67	
24	Poise . . . . .		1		1		2	1	1	1			4	2	1	16		2	1	1	2	4	1	3	4	4	3	4	1	3		1	3			67	
25	Quickness . . . . .					1					1		2				2	1	3	2	5	3	3	5	3	3	3	17	5	4	3		1	1		67	
26	Resourcefulness . .		1		2	2	3	4			16	2	4	1	3	1	2	1	1		1	2	1	3	1	3	1	3	2	1	4	2				67	
27	Responsibleness . .		3			3	2	1	3	3	1	2	3	7	1	2	6			3	2	1	1	2	14	1	1		2	1	2					67	
28	Systematic. . . . .			1	1	3	1		1	4	1	16		5	1	1	2	4	2	2	3		5		2	2	2	2	1	1			3	3			67
29	Tact. . . . .		1	2	2	4	1	2	3	1	4	1	2	1	2		3		2	2	1		3	1	2	2	18	2	1	2		2				67	
30	Thoughtfulness. . .										1		1	1	2	1		1		2	1		2	2	3	2	2	10	2	13	21	1				67	
31	Unselfishness . . .									1	2	3				5	2		3		1		1	15		5	7	3	6	3	1	5	15			67	
32	Versatility . . . . .		2					1	2	2		3	3	3	1		5	1			1	1			1	3	3	2	3	1		9				67	





TABLE XXVI. TRAITS LISTED IN ORDER OF IMPORTANCE  
EMPLOYERS' JUDGMENTS

Trait No.	TRAITS	Rank Order	Inverse Ratio Weighting
1	Accuracy. . . . .	1	864
16	Intelligence. . . . .	2	480
17	Judgment. . . . .	3	420
4	Ambition. . . . .	4	403
18	Loyalty . . . . .	5	384
23	Personality . . . . .	6	377
26	Resourcefulness . . . . .	7	368
9	Efficiency. . . . .	9.5	352
22	Perseverance. . . . .	9.5	352
28	Systematic. . . . .	9.5	352
15	Initiative. . . . .	11	341
7	Courtesy. . . . .	12	336
3	Alertness . . . . .	13	320
6	Cooperativeness . . . . .	14	312
2	Adaptability. . . . .	15	294
24	Poise . . . . .	16	288
8	Discretion. . . . .	17	264
5	Concentration . . . . .	18.5	252
12	Faithfulness. . . . .	18.5	252
14	Independence. . . . .	20	209
19	Memory. . . . .	21	195
10	Enthusiasm. . . . .	22	190
31	Unselfishness . . . . .	23	150
27	Responsibleness . . . . .	24	140
29	Tact. . . . .	25	126
21	Originality . . . . .	26	112
11	Even Temper . . . . .	27.5	102
25	Quickness . . . . .	27.5	102
13	Humor . . . . .	29	92
32	Versatility . . . . .	30	85
20	Objectivity . . . . .	31	75
30	Thoughtfulness. . . . .	32	60





and second-ranking traits. There is not this difference, however, between any of the other traits. The traits efficiency, perseverance, and systematic are given the same rank--eighth; concentration and faithfulness rank 18; and even temper and quickness, 27.

The traits were then classified into the four groups that were used for the employee classification. These groupings are presented in Table XXVII, Page 128.

In the first group there are seven traits that the employers consider "very important"--accuracy, intelligence, judgment, ambition, loyalty, personality, and resourcefulness. The first three traits in the "very necessary" group--efficiency, perseverance, and systematic--were given the same rank--8--and they were put into this group because their weight was nearer the following trait, ranking 11, than the preceding trait, ranking 7. Poise, the ninth trait in this second group, was placed into this group as its weight was nearer the weight given adaptability immediately preceding it than discretion, the first trait in the third group. The other traits considered "very necessary" by the employers were initiative, courtesy, alertness, and cooperativeness. The "very desirable" traits ranked by employers pertain to the office workers' attitude toward their employers and minor traits necessary to do one's work. The traits ranked in the last





TABLE XXVII. TRAITS PRESENTED ACCORDING  
TO GROUP CLASSIFICATION  
EMPLOYERS' JUDGMENTS

<u>Very Important</u>	<u>Very Desirable</u>
Accuracy	Discretion
Intelligence	Concentration
Judgment	Faithfulness
Ambition	Independence
Loyalty	Memory
Personality	Enthusiasm
Resourcefulness	Unselfishness
	Responsibleness
<u>Very Necessary</u>	<u>Not to Be Overlooked</u>
Efficiency	Tact
Perseverance	Originality
Systematic	Even Temper
Initiative	Quickness
Courtesy	Humor
Alertness	Versatility
Cooperativeness	Objectivity
Adaptability	Thoughtfulness
Poise	



TABLE 1. TRAINING OBJECTIVES FOR THE  
INTELLIGENCE ANALYST

Very Important	Very Important
Accuracy	Very Important
Intelligence	Very Important
Independent	Very Important
Initiative	Very Important
Imagination	Very Important
Energy	Very Important
Enthusiasm	Very Important
Unselfishness	Very Important
Responsiveness	Very Important
Not to be Overlooked	Very Important
Team	Very Important
Originality	Very Important
Good Temper	Very Important
Outdoors	Very Important
Humor	Very Important
Versatility	Very Important
Objectivity	Very Important
Thoroughness	Very Important

group as traits of negligible value pertain to office workers' associations with other people and those traits of least importance in fulfilling the day's work.

### Conclusions

1. Employers expect their office workers to be accurate in all their work.
2. Employers rank intelligence and judgment second and third respectively and resourcefulness seventh in the "very important" group of traits, indicating that they want their employees to be able to do their own thinking and to possess a keen and orderly mind.
3. Employers desire their office workers to possess a desire to learn.
4. Loyalty and personality are very important traits which an employer looks for in an employee.
5. Employers consider "very necessary" a number of traits that employees should possess to perform their work in the best possible manner. Such traits as efficiency, perseverance, systematic, initiative, alertness, and adaptability are included in this group.
6. Employers do not give too high a ranking to those traits describing one's association with other people. Courtesy, cooperativeness, and poise are ranked as "very necessary," whereas unselfishness is ranked as being "very desirable," and tact,





even temper, and thoughtfulness are ranked in the last group as traits of negligible value.

7. Loyalty is considered a very important trait, but discretion and faithfulness fall into the third group as being "very desirable."
8. In the "very desirable" group employers rank also those traits that distinguish an employee for her individual ability to succeed in her line of work-- concentration, independence, enthusiasm, and responsibility.
9. Employers are not concerned very much about their employees' ability to be original or versatile. Both traits fall into the last group. Similarly, humor is not an important trait that employers look for in an employee.

#### Combined Judgments of Employees and Employers

In the previous pages, it has been brought out how the employees and employers ranked the personality traits treated in this study. In order that some final conclusions may be arrived at and recommendations made for instructors as to which of these traits they should strive to develop in their pupils, the combined judgments of the employees and employers are presented in Table XXVIII, Page 131. The traits are presented as they were ranked by office workers and employers under the four classifications. Indication is made as to





TABLE XXVIII. RELATIVE IMPORTANCE OF TRAITS  
COMBINED JUDGMENTS OF EMPLOYEES AND EMPLOYERS

<u>Very Important</u>		<u>Very Desirable</u>	
Accuracy. . . . .	.OW & E <sup>1</sup>	Enthusiasm . . . . .	.OW & E
Efficiency. . . . .	.OW <sup>2</sup>	Discretion . . . . .	E
Intelligence. . . . .	.OW & E	Poise. . . . .	.OW
Personality . . . . .	.OW & E	Concentration. . . . .	E
Judgment. . . . .	.OW & E	Systematic . . . . .	.OW
Concentration . . . . .	.OW	Faithfulness . . . . .	E
Ambition. . . . .	.OW & E	Even Temper. . . . .	.OW
Adaptability. . . . .	.OW	Independence . . . . .	.OW & E
Loyalty . . . . .	E <sup>3</sup>	Perseverance . . . . .	.OW
Initiative. . . . .	.OW	Memory . . . . .	E
Resourcefulness . . . . .	E	Tact . . . . .	.OW
		Quickness. . . . .	.OW
<u>Very Necessary</u>		Unselfishness. . . . .	E
Courtesy. . . . .	.OW & E	Responsibleness. . . . .	E
Efficiency. . . . .	E		
Responsibleness . . . . .	.OW	<u>Not to Be Overlooked</u>	
Perseverance. . . . .	E	Versatility. . . . .	.OW & E
Cooperativeness . . . . .	.OW & E	Tact . . . . .	E
Systematic. . . . .	E	Originality. . . . .	.OW & E
Faithfulness. . . . .	.OW	Thoughtfulness . . . . .	.OW & E
Initiative. . . . .	E	Even Temper. . . . .	E
Alertness . . . . .	.OW & E	Resourcefulness. . . . .	.OW
Memory. . . . .	.OW	Quickness. . . . .	E
Discretion. . . . .	.OW	Unselfishness. . . . .	.OW
Adaptability. . . . .	E	Humor. . . . .	.OW & E
Loyalty . . . . .	.OW	Objectivity. . . . .	.OW & E
Poise . . . . .	E		

<sup>1</sup>So ranked by office workers and employers<sup>2</sup>So ranked by office workers<sup>3</sup>So ranked by employers

whether the traits were ranked under each classification by office workers and employers (OW & E), by office workers (OW), or by employers (E). It can readily be seen on which traits there was agreement and disagreement between the two groups.





### Conclusions

Based on the combined judgments of the office workers and employers, the following traits are the most important that office workers should possess. Teachers should strive to develop these traits in prospective office workers, and guidance counselors should recommend for office work only those pupils who possess these personal qualities.

Accuracy--Not in details alone, but in everything.

Efficiency--Not only in handling details, but in handling more difficult tasks without waste of time or energy.

Intelligence--Keen; high native intelligence; orderly mind.

Personality--Appearance, health, manners, etc.

Judgment--In handling people and situations. Deciding how and when to do things.

Concentration--Ability to work efficiently in the midst of distractions.

Ambition--Desire to learn; desirous of being entrusted with responsibilities.

Adaptability--Ability to adjust to employer's attitudes.

Loyalty--Able to give high degree of loyalty to employer and business.

Initiative--Does not have to be told what to do.

Resourcefulness--Ability to meet emergencies; never at a loss to know what to do or say in difficult situations.

Courtesy--Habitually courteous; especially in dealing with people outside the organization.

Cooperativeness--Ability to work with others.





Alertness--To sense true import of situations; to anticipate needs.

Responsibleness--Willingness to assume responsibility. Willing to go ahead with work without constant authorization.

Perseverance--Determination; stick-to-it-iveness in the face of obstacles.

Systematic--Naturally careful about details and a liking for orderly procedure in large and small matters.

Memory--For details, names, faces, places, etc. Exceptionally retentive.

Discretion--Ability to deal satisfactorily with confidential matters.

Poise--Self-control under stress. Not easily disturbed or thrown off balance by the unexpected.

#### Consolidation of Traits with Activities

An attempt was made to consolidate the traits with the activities in an effort to determine what traits are involved in the performance of each activity. The entire list of 32 traits was consolidated into a table with the activities that should be taught in school, based on the combined judgments of employees and employers. The duties were listed on the left-hand side of the table and the 32 traits were listed at the head of the 32 columns at the right. The duties were listed in the order in which they appeared in Table XIX, Pages 95-96--the combined judgments of employees and employers on the duties to be taught in school. The traits were listed as near as possible in the order of importance given to them by the employees and employers. The traits on which





there was agreement as being "very important" and "very necessary" by employees and employers were listed first. Those traits on which there was disagreement by employees and employers in the first two classifications were listed next in order. Lastly, the "very desirable" and "not to be overlooked" traits were listed.

The judgments of a commercial teacher and one office worker were solicited to determine the traits concerned with each of the duties given. The results are shown in Table XXIX, Pages 135-136.

### Conclusions

1. The results of this investigation reveal the justification of the high ranking by employees and employers for such traits as accuracy, efficiency, intelligence, and concentration, and the low ranking of originality, versatility, and humor.
2. One trait, enthusiasm, did not receive any check mark as being a trait that is involved in the doing of any of the activities given. It is difficult to apply it to any particular activity, as it is more or less an attitude toward the combined activities of an employee. In this group would also be classed ambition, initiative, responsibility, and versatility.
3. Some of the other traits that did not receive many check marks are: cooperativeness, unselfishness, thoughtfulness, even temper, humor, and versatility.







TABLE XXIX. CONSOLIDATION OF TRAITS WITH ACTIVITIES

DUTIES	Traits																																
	Accuracy	Efficiency	Personality	Intelligence	Adaptability	Ambition	Initiative	Judgment	Loyalty	Courtesy	Cooperativeness	Alertness	Concentration	Resourcefulness	Responsibility	Faithfulness	Memory	Discretion	Perseverance	Systematic	Poise	Enthusiasm	Even Temper	Tact	Quickness	Independence	Unselfishness	Versatility	Originality	Thoughtfulness	Humor	Objectivity	
Make Journal Entries . . . . .	x	x		x				x					x				x				x					x							
Keep General Ledger. . . . .	x	x		x				x					x				x									x							
Keep Petty Cash Book . . . . .	x	x		x				x					x				x									x							
Balance Cash Daily . . . . .	x	x		x				x					x				x									x							
Keep Sales Ledger. . . . .	x	x		x				x					x				x									x							
Keep Purchases Ledger. . . . .	x	x		x				x					x				x									x							
Keep Accounts Payable Ledger . .	x	x		x				x					x				x									x							
Keep Accounts Receivable Ledger	x	x		x				x					x				x									x							
Take Trial Balance . . . . .	x	x		x				x					x				x									x							
Prepare Profit and Loss Statement. . . . .				x				x					x				x									x							
Prepare Balance Sheet. . . . .	x	x		x				x					x				x									x							
Keep Expense Accounts. . . . .	x	x		x				x					x				x									x							
Filing . . . . .	x	x		x				x					x				x									x							
Take Dictation . . . . .	x	x		x				x					x				x									x							
Transcribe from Shorthand Notes.	x	x		x				x					x				x									x							
Compose Letters for Employer . .	x	x		x				x					x				x									x							
Operate Calculating Machine. . .	x			x									x													x							
Make Bank Deposit. . . . .	x	x		x									x													x							
Operate Adding Machine . . . . .	x	x		x									x													x							
Good Penmanship. . . . .	x	x		x									x													x							
Check Bills and Invoices . . . .	x	x		x									x													x							
Record Invoices. . . . .	x			x									x													x							
Make Out Receipts. . . . .	x																									x							
Figure Pay Rolls . . . . .	x	x		x				x					x													x							
Prepare Pay Roll Report. . . . .	x			x									x																				
Make Out Social Security and Unemployment Reports. . . . .	x			x																						x							
Make Out Notes . . . . .	x																																







TABLE XXIX. (Continued) CONSOLIDATION OF TRAITS WITH ACTIVITIES

DUTIES	Traits																																
	Accuracy	Efficiency	Personality	Intelligence	Adaptability	Ambition	Initiative	Judgment	Loyalty	Courtesy	Cooperative-ness	Alertness	Concentra- tion	Resourceful- ness	Responsible- ness	Faithfulness	Memory	Discretion	Perseverance	Systematic	Poise	Enthusiasm	Even Temper	Tact	Quickness	Independence	Unselfish- ness	Versatility	Originality	Thoughtful- ness	Humor	Objectivity	
Send Out Collection Letters. . .	x	x		x				x	x							x	x							x									
Prepare Income Tax Returns . . .	x			x				x	x							x	x																
Indexing . . . . .	x			x				x		x							x																
Answer Telephone . . . . .	x	x	x	x						x							x																
Monthly Reconciliation of Check Book. . . . .	x	x																															
Understand Why Stock Turnover is Figured . . . . .				x																													
Interpret Statement of Expenses. Type from Copy:				x				x	x																								
Letters . . . . .	x			x				x																									
Orders. . . . .	x							x																									
Bills, Invoices . . . . .	x			x																													
Checks. . . . .	x								x																								
Articles, Manuscripts . . . . .	x																																
Legal Documents . . . . .	x			x																													
Minutes of Meetings . . . . .	x							x																									
Cut Stencils. . . . .	x																																
Operate Mimeograph . . . . .		x		x				x																									
Fold Letters and Insert in Envelopes . . . . .	x	x																															
Address Envelopes, Packing Slips . . . . .	x																																
Read, Sort, and Classify Mail...	x	x						x	x	x																							
Wait on Customers. . . . .			x		x			x	x																								





These traits are not involved in the doing of any particular activity but rather are involved in one's association with those around her. Even though the check marks for these traits are scarce in this tabulation, Pages 135-136, there is still a place for training young people to develop them in their actions and attitudes toward others.

### Recommendations

1. Teachers of commercial subjects should strive to develop in their pupils the highest degree of accuracy in all their work. They should train their pupils to thoroughly check all their work not only for typing errors but for errors in English, grammar, and punctuation.
2. Courses in specialized commercial education should not be taken by pupils whose intelligence is below average. Office workers must be able to do their own thinking and in many cases make judgments in the work they do and in handling people. In offices in small communities, where the office force is small, the office worker is required very frequently to make decisions, especially when the employer is away. Specialized commercial courses should be taken only by those pupils who can be relied upon to do their own thinking and make decisions.





3. Teachers of commercial work should strive to develop in their pupils a pleasing personality that will enable them to get along and work with others. They should instil in the pupils the necessity of being well-mannered; develop in them a desire to possess a pleasing appearance as to clothes, hairdress, and cosmetics. Courtesy to all and the ability to work cooperatively with others are essential attributes of a pleasing personality. Pupils should learn to work in the classroom with people other than their friends.
4. Pupils should be trained to be able to find something to do when they have finished the work assigned to them. They should be able to decide for themselves what they think they should do to improve their ability as typists, bookkeepers, or in taking dictation. They should be made to understand the value of an employee who possesses initiative.
5. Loyalty to one's supervisors and co-workers is a quality which high school pupils should be made to appreciate. A test of their loyalty within the school should be made at times and their failure to live up to the test should be brought to their attention.
6. Another trait which is necessary for an office worker to possess in order to be able to meet people and make a good impression is poise. Pupils should develop, through the help of their instructors, the ability to speak to people clearly and calmly.





7. Prospective office workers should possess the following traits if they are to succeed in their work: efficiency, resourcefulness, responsibility, alertness, perseverance, and systematic. These traits are essential for the efficient carrying on of the office employee's daily tasks.
8. It is evident that mere technical skill is not the only requirement of an office worker. She must possess a combination of the traits discussed above in order to succeed in her work.
9. Guidance counselors should recommend for office work only those pupils who possess the necessary personal traits to enter that type of work. The traits discussed in this study may serve as a basis for analyzing the personalities of those pupils who desire to become office workers.
10. The results of this discussion may be consulted by pupils who are desirous of taking specialized commercial education courses in high school. Self-analysis studies will result whereby the pupils can determine whether or not they possess the essential personal traits for entering into any type of office work.
11. Teachers of commercial education should so organize their instruction that those traits that are possible of development through high school instruction, such





as accuracy, initiative, judgment, courtesy, co-operativeness, loyalty, systematic, etc., will be developed in the pupils. A lot can be accomplished in developing these traits in high school pupils by keeping a personality rating scale for each pupil.

There are a number of these personality rating scales on the market and more publishing companies are following the trend of the times by putting out new ones every year. Some teachers have even organized rating scales to fit their own particular needs.

of information requested: where the employee secured her general education and where she secured her business training. This was to give some indication of how many office workers started their business training in high school, thus arriving to some conclusions as to what part the high schools in these communities should play in preparing their pupils for office work. Table XIX, Page 142, presents the data concerning the general education of these office workers.

Out of the 100 employees who made return, 147 (147%) secured their general education in high school. There were 4 who attended only junior high and 2 who did not finish high school, one leaving in the tenth, 5 in the eleventh, and 2 in the twelfth grade. A negligible number attended junior college or college.





## CHAPTER X

### EDUCATION OF EMPLOYEES

#### General Education

An attempt was made to find out how much education office workers in small communities possess and what the opportunities are for high school graduates in securing office jobs. Schedule E, Page 202, was the form used to collect these data. There were two items of information requested: where the employee secured her general education and where she secured her business training. This was to give some indication of how many office workers secured their business training in high school, thus arriving to some conclusions as to what part the high schools in these communities should play in preparing their pupils for office work. Table XXX, Page 142, presents the data concerning the general education of these office workers.

Out of the 168 employees who made returns, 147 (88%) secured their general education in high school. There were 4 who attended only junior high and 8 who did not finish high school, one leaving in the tenth, 5 in the eleventh, and 2 in the twelfth grade. A negligible number attended junior college or college.





TABLE XXX. GENERAL EDUCATION OF EMPLOYEES

Number of Office Workers Who Completed the Amounts of Education Indicated																	
Junior High				High School			Post High School	Private Preparatory School				Junior College		College			
7	8	9	10	11	12	Graduates	13	9	10	11	12	13	14	13	14	15	16
	1	3	1	5	2	147	11	0	0	1	8	2	1	1	2	1	1

TABLE XXXI. BUSINESS TRAINING OF EMPLOYEES

Number of Office Workers Who Received Their Business Training in the Types of Schools Indicated																
High School	Private Business School After			Post High School	Junior College		College				Univer- sity	Evening School			Corre- spond- ence School	No Busi- ness Train- ing
	H. S. Grad.	9	10	11	13	14	13	14	15	16	Summer Session	Public	Priv. Bus. Sch.	College or Univ.		
123	50	2	0	4	13		1	0	0	0	1	1	4	10	3	10





Only one of the three going to junior college attended the full two years and one out of the five who started college was graduated. Of this small number who attended college, two are employed in doctors' offices, one in a school, one in a bank, and another in a business office. The one who was graduated is employed in a doctor's office.

The high school is by far the most popular institution for office workers in small communities to get their general education.

### Business Training

Data concerning the business training of these office workers are presented in Table XXXI, Page 142.

The high school was attended by 123 out of the 168 for their business training. This represents 77% of the office workers in these communities. Of the 123, 21 attended private business school for further business training, thus leaving 102 (61%) who depended entirely upon the high school for their business training.

Twenty-nine (17%) attended private business schools after high school graduation, where they had been enrolled in either the college preparatory or general course. The number who left high school to attend private business school is small--only six. There were 10 employees who received no business training whatsoever. They either left school too early to receive any business training or took only the classical





course in high school without any business education.

The greatest number of office workers surveyed in the communities studied obtained their business training in the high schools within their respective communities.

#### Placement Possibilities

An attempt was also made to find out what were the employment possibilities of office workers outside their own immediate community. Table XXXII, Page 145, was organized to present these data.

Under each community data are presented concerning the number of these office workers who were graduated from the high school within that community and from other high schools outside the community. There is also given under each community the number of office workers located in offices in the community and in the other two towns concerned in this study. For example, in Bellows Falls, 75 of the people residing in Bellows Falls who are office workers (102) were graduated from Bellows Falls High School and 19 from high schools outside the town. Three of the office workers in Bellows Falls attended only junior high school and five did not graduate high school. Four of the five attended business school and one attended public evening school. The high schools outside the town might include high schools around Bellows Falls, or high schools anywhere in Vermont,



course in high school without any business education. The greatest number of office workers surveyed in the communities studied obtained their business training in the high schools within their respective communities.

#### Placement Possibilities

An attempt was also made to find out what were the employment possibilities of office workers outside their own immediate community. Table XXXII, page 145, was organized to present these data.

Under each community data are presented concerning the number of these office workers who were graduated from the high school within their community and from other high schools outside the community. There is also given under each community the number of office workers located in offices in the community and in the other two towns concerned in this study. For example, in Bellevue Falls, 75 of the people residing in Bellevue Falls who are office workers (103) were graduated from Bellevue Falls High School and 19 from high schools outside the town. Three of the office workers in Bellevue Falls attended only Junior High School and five did not graduate high school. Four of the five attended business school and one attended public evening school. The high schools outside the town which include high schools around Bellevue Falls, or high schools elsewhere in Vermont,

TABLE XXXII. PLACEMENT POSSIBILITIES OF GRADUATES  
OUTSIDE THEIR OWN IMMEDIATE COMMUNITIES

BELLOWS FALLS					BRATTLEBORO				SPRINGFIELD				
Graduated		Employed			Graduated		Employed	Graduated		Employed	Graduated		Employed
Bel lows Falls High	Other High Schools	Bel lows Falls	Spring- field	Brattle- boro	Other Towns	Brattle- boro High	Other High Schools	Brattle- boro	Other Towns	Spring- field High	Other High Schools	Spring- field	Other Towns
75	19	84	11	2	5	32	13	46	0	17	2	20	0





New Hampshire, Massachusetts, or other states. Office workers who graduated from these high schools settled in Bellows Falls some time after they finished their schooling and that accounts for their obtaining employment within the town. Of the 102 people classed as office workers in Bellows Falls, 84, or 82%, are employed within the town; 11, or 11%, in Springfield; 2, or 2%, in Brattleboro; and 5, or 5%, in small towns in New Hampshire. Since this study was started, many more residents of Bellows Falls have secured employment in the machine shop offices in Springfield.

In Brattleboro, 32, or 71%, of the office workers are graduates of Brattleboro High School and 13, or 29%, of other high schools; three did not graduate high school. All of these people are employed in Brattleboro.

In Springfield, 17, or 89%, of the office workers are graduates of Springfield High School and 2, or 11%, graduates of other schools; one employee attended only junior high. These people are all employed within the town of Springfield.

### Conclusions

1. Office workers in small communities depend on the high schools within their own communities to furnish them with a general education background and with a business training that will enable them to enter office work.





2. Only a very small per cent (29) of the office workers secured their business training in private business schools. Of this per cent, 12%, gained some business training in high school, while 17% gained all their business training from a private business school.
3. Office workers in small communities manage to find employment within their own town. This study shows that 89% (150 out of 168) of the workers are employed within their own community.
4. A small number of office workers who reside in Bellows Falls (18%) manage to find employment in nearby towns, the largest per cent, 11%, going to Springfield, Vermont.

#### Recommendations

1. The commercial course in the high schools of the communities studied should provide their pupils with as broad a general education background as possible. It should include at least the major subjects, such as commercial law, commercial geography, and economics, that will give the graduates that occupational intelligence that will enable them to adjust themselves quickly and satisfactorily to their jobs.
2. The commercial course should be so organized as to train high school pupils to enter office jobs immediately upon graduation.



2. Only a very small per cent (22) of the office workers acquired their business training in private business schools. Of this per cent, 122, gained some business training in high school, while 122 gained all their business training from a private business school.
3. Office workers in small communities and also the employment within their own town. This study shows that 82 (110 out of 122) of the workers are employed within their own community.
4. A small number of office workers who reside in Belmont Falls (12) manage to find employment in nearby towns, the largest per cent, 112, going to Springfield, Vermont.

#### Recommendations

1. The commercial course in the high schools of the communities studied should provide their pupils with as broad a general education background as possible. It should include as much the major subjects, such as commercial law, commercial geography, and economics that will give the graduates that occupational flexibility that will enable them to adjust themselves quickly and satisfactorily to their jobs.
2. The commercial course should be so organized as to train high school pupils to enter office jobs in relatively new positions.

3. As most of the office workers obtain employment in their own immediate community, a cooperative placement service between school and business concerns should be established.





## CHAPTER XI

### MISCELLANEOUS DATA

#### Additional Duties

A number of additional duties (170) were collected from employees and a few (24) from employers. These duties, with the few exceptions noted in previous chapters and included in previous tables, were duties pertinent to the businesses where the employees and employers were located. As they were of such a specialized nature, they were not included in any of the previous tables, but were organized into a table of their own under the headings of the businesses from which they were received.

Table XXXIII, Pages 150-165, presents the additional duties collected from employees, giving for each duty: (1) the frequency of performance, (2) the number considering the duty important and unimportant, (3) the number of votes in favor of teaching the duty in school, on the job, or in school and on the job, (4) the time spent on each duty where the time was indicated by the employees.

Table XXXIV presents the additional duties collected from employers. This table appears on pages 166-167.





TABLE XXXIII. ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
161	1	General Operate Switchboard. . . . .	5	5	0	0	5	0	90	7 1/2	102
211	8.5	Operate Bookkeeping Machine. . . . .	2	2	0	0	2	0	--	--	--
103	83.5	Balance Cash Weekly. . . . .	1	1	0	0	0	1	30	1 1/2	52
100	83.5	Operate Ditto Machine. . . . .	1	1	0	0	1	0	--	1	50
122	83.5	Operate Check Writer. . . . .	1	1	0	0	1	0	120	12	52
132	83.5	Keep Salesmen's Price Book and Sample Kit Up to Date. . . . .	1	1	0	0	1	0	--	--	--
171	83.5	Filing Checks. . . . .	1	1	0	1	0	0	60	4	12
181	83.5	Take Dictation at the Typewriter. . . . .	1	1	0	0	0	1	20	2	50
189	83.5	O. K. All Invoices. . . . .	1	1	0	0	1	0	30	3	52
199	83.5	Write Out Checks. . . . .	1	1	0	0	0	1	--	--	--
212	83.5	Mail Catalogs. . . . .	1	0	1	0	1	0	--	--	--
219	83.5	Proofread Catalogs. . . . .	1	0	1	0	1	0	--	--	--



GENERAL INDEX

Page No.	Rank	Index	Frequency	Important	Unimportant	Loaded	Top	Self-Loading	Minutes	Hours	Per Week	Per Year
312	2.25	Flourish Catalogs	1	1	1	1	1	0	1	0	1	1
313	2.25	Mail Catalogs	1	1	1	1	1	0	1	0	1	1
314	2.25	Write Out Checks	1	1	1	1	1	0	1	0	1	1
315	2.25	O. K. All Invoices	1	1	1	1	1	0	1	0	1	1
316	2.25	Take Dictation at the Typewriter	1	1	1	1	1	0	1	0	1	1
317	2.25	Writing Checks	1	1	1	1	1	0	1	0	1	1
318	2.25	Write up to Date	1	1	1	1	1	0	1	0	1	1
319	2.25	Keep Telephone, a Price Book and Sample	1	1	1	1	1	0	1	0	1	1
320	2.25	Operate Check Writer	1	1	1	1	1	0	1	0	1	1
321	2.25	Operate Dicto Machine	1	1	1	1	1	0	1	0	1	1
322	2.25	Reference Cash Weekly	1	1	1	1	1	0	1	0	1	1
323	2.25	Operate Bookkeeping Machine	1	1	1	1	1	0	1	0	1	1
324	1	Operate Stenographic	1	1	1	1	1	0	1	0	1	1
325	1	General	1	1	1	1	1	0	1	0	1	1

TABLE XXXIII. (Continued) ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
221	83.5	Take Care of Employer's Checking Account . . . . .	1	1	0	0	1	0	--	--	--
244	83.5	Pass Bills for Payment . . . . .	1	1	0	0	1	0	--	2	52
245	83.5	Fill Out Card Index for Prospects. . .	1	1	0	0	1	0	--	--	--
246	83.5	Post Newspaper Clippings . . . . .	1	1	0	0	1	0	--	--	--
233	2	<u>Manufacturing</u> Keep Time Cards. . . . .	4	4	0	0	4	0	180	23	104
170	3.5	Keep Medical Records of Employees Hurt on Job. . . . .	3	1	2	0	3	0	--	--	--
168	8.5	Assemble Records of Manufacturing Processes of Each Unit Manufactured. .	2	2	0	0	2	0	60	5	52
169	8.5	Keep Record of Manufacturing Processes of Each Unit Manufactured . . . . .	2	2	0	0	2	0	180	3	52
101	83.5	Check Labor Hours and Labor on Various Processes of Manufacturing. . . . .	1	1	0	0	1	0	--	8	50
105	83.5	Type Reports of Men Working Over 40 and Over 60 Hours . . . . .	1	1	0	0	1	0	--	--	--



Day No.	Bank	DATES	Yourselves	Important	Unimportant	School	Top	Top-look	Per Day minutes	Per Week Hours	Per Year Weeks
100	22.2	any card, 20 hours . . . . . the records of non working card 40	1	1	0	0	1	0	1	1	1
101	22.2	records of manufacturing . . . . . of 1900-1901. hours and work on machine	1	1	0	0	1	0	1	8	20
102	22.2	of 1901 with manufacturing . . . . . Keep records of manufacturing processes	2	2	0	0	2	0	180	2	22
103	22.2	center of 1901 with manufacturing . . . . . assemble records of manufacturing 1901	2	2	0	0	2	0	60	2	22
104	22.2	on top . . . . . Keep records of employees with	2	1	2	0	2	0	1	1	1
105	22.2	Keep time cards . . . . . manufacturing	4	4	0	0	4	0	180	22	101
106	22.2	Keep manufacturing . . . . . of 1901 with manufacturing	1	1	0	0	1	0	1	1	1
107	22.2	Keep records of employees with . . . . . on top . . . . .	1	1	0	0	1	0	1	1	1
108	22.2	Keep records of employees with . . . . . of 1901 with manufacturing	1	1	0	0	1	0	1	1	1
109	22.2	Keep records of employees with . . . . . of 1901 with manufacturing	1	1	0	0	1	0	1	1	1
110	22.2	Keep records of employees with . . . . . of 1901 with manufacturing	1	1	0	0	1	0	1	1	1
111	22.2	Keep records of employees with . . . . . of 1901 with manufacturing	1	1	0	0	1	0	1	1	1
112	22.2	Keep records of employees with . . . . . of 1901 with manufacturing	1	1	0	0	1	0	1	1	1
113	22.2	Keep records of employees with . . . . . of 1901 with manufacturing	1	1	0	0	1	0	1	1	1
114	22.2	Keep records of employees with . . . . . of 1901 with manufacturing	1	1	0	0	1	0	1	1	1
115	22.2	Keep records of employees with . . . . . of 1901 with manufacturing	1	1	0	0	1	0	1	1	1
116	22.2	Keep records of employees with . . . . . of 1901 with manufacturing	1	1	0	0	1	0	1	1	1
117	22.2	Keep records of employees with . . . . . of 1901 with manufacturing	1	1	0	0	1	0	1	1	1
118	22.2	Keep records of employees with . . . . . of 1901 with manufacturing	1	1	0	0	1	0	1	1	1
119	22.2	Keep records of employees with . . . . . of 1901 with manufacturing	1	1	0	0	1	0	1	1	1
120	22.2	Keep records of employees with . . . . . of 1901 with manufacturing	1	1	0	0	1	0	1	1	1

TABLE XXXIII. (Continued) ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
136	83.5	Check on the Billing . . . . .	1	1	0	0	1	0	60	6	52
137	83.5	Keep Production Book . . . . .	1	1	0	0	1	0	15	1½	52
138	83.5	Billing. . . . .	1	1	0	0	0	1	60	6	52
139	83.5	Keep Register on C. O. D. Shipments and Make out Checks for Same. . . . .	1	1	0	0	1	0	90	9	52
144	83.5	Purchase Raw Material. . . . .	1	1	0	0	1	0	--	--	--
145	83.5	Purchase Repair Parts and Equipment. .	1	1	0	0	1	0	--	--	--
151	83.5	Make Out Orders for Office and Mill. .	1	1	0	0	1	0	--	6	50
152	83.5	Prepare Sales Cards for Office and Mill	1	1	0	0	1	0	--	1	52
153	83.5	Assemble Orders. . . . .	1	1	0	0	1	0	30	3	50
133	83.5	Check Up on Ice Cream Gallonage. . . .	1	1	0	0	1	0	15	1½	52
134	83.5	Ice Cream Billing. . . . .	1	1	0	0	1	0	60	6	52
135	83.5	Balance Production Report. . . . .	1	1	0	0	1	0	180	18	52





TABLE XXXIII. (Continued) ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
154	83.5	Record Temperature of Producers' Milk.	1	1	0	0	1	0	--	--	--
155	83.5	Make Charges to Producers' Accounts. .	1	1	0	0	1	0	--	--	--
156	83.5	Keep Scrap Book of Clippings in Regard to Milk . . . . .	1	1	0	0	1	0	--	--	--
157	83.5	Record Bacteria Count of Each Milk Producer. . . . .	1	1	0	0	1	0	60	6	52
158	83.5	Record Sediment Tests of Milk of Each Milk Producer . . . . .	1	1	0	0	1	0	60	6	12
159	83.5	Make Out Order Slips for Truck Drivers	1	1	0	0	1	0	15	1 1/2	52
160	83.5	Record Charges to Milk Producers' Accounts. . . . .	1	1	0	0	1	0	--	--	--
174	83.5	Keep Record of Scrap Work. . . . .	1	0	1	0	1	0	60	6	50
175	83.5	Keep Record of Work Started. . . . .	1	1	0	0	1	0	90	8	50
176	83.5	Keep Record of Special Tools . . . . .	1	1	0	0	1	0	90	8	50
177	83.5	Keep Up-to-Minute Record of Rush Tools	1	1	0	0	1	0	120	12	50



Day No.	Bank	Miles	Frequency	Important	Unimportant	Local	Top	School-top	Per Day Miles	Per Week Hours	Per Year Weeks
171	82.2	Keep up-to-minute record of when loads	1	1	0	0	1	0	120	12	20
172	82.2	Keep record of special loads . . . . .	1	1	0	0	1	0	30	8	20
173	82.2	Keep record of milk gathered . . . . .	1	1	0	0	1	0	30	8	20
174	82.2	Keep record of sold milk . . . . .	1	0	1	0	1	0	60	8	20
175	82.2	Accounts . . . . .	1	1	0	0	1	0	--	--	--
176	82.2	Record charges to milk producers,									
177	82.2	Make out order slips for milk products	1	1	0	0	1	0	12	12 $\frac{1}{2}$	25
178	82.2	Milk producer . . . . .	1	1	0	0	1	0	60	8	25
179	82.2	Record segment tests of milk of each									
180	82.2	producer . . . . .	1	1	0	0	1	0	60	8	25
181	82.2	Record receiving count of each milk									
182	82.2	to milk . . . . .	1	1	0	0	1	0	--	--	--
183	82.2	Keep sold book of shipments in detail									
184	82.2	Make charges to producers, accounts . .	1	1	0	0	1	0	--	--	--
185	82.2	Record membership of producers, milk.	1	1	0	0	1	0	--	--	--

TABLE XXIII. (Continued) DAILY MILEAGE



TABLE XXXIII. (Continued) ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
195	83.5	Note Quotations on Price Cards . . . .	1	1	0	0	1	0	--	--	--
196	83.5	Make Note of Promises to Make Shipments	1	1	0	0	1	0	--	--	--
197	83.5	Attach Paper Sample onto Formula . . .	1	1	0	0	1	0	--	--	--
198	83.5	Send Paper Samples to Customers and Salesmen. . . . .	1	1	0	0	1	0	--	--	--
234	83.5	Record and File Names of Salesmen with Name of Company for Future Reference	1	1	0	0	1	0	--	--	--
250	83.5	Make Specifications for Factory Orders	1	1	0	0	1	0	--	--	--
251	83.5	Issue Shop Passes. . . . .	1	1	0	0	1	0	30	3	52
		<u>Banks</u>									
167	8.5	Keep Tickler File of Future Matters. .	2	2	0	0	2	0	--	--	--
92	83.5	Figure Interest Notices. . . . .	1	1	0	0	1	0	--	18	2
93	83.5	Balance Savings Ledger Cards . . . . .	1	1	0	0	1	0	90	4 1/2	12
163	83.5	Compile Schedules for Accountants for Preparing Income Tax Returns. . . .	1	1	0	0	1	0	--	--	--



Day No.	Rank	Notes	Frequency	Important	Unimportant	School	Job	School-Job	Per Day Minutes	Per Week Hours	Per Year Weeks
181	22.2	Make note of premises on Live Cells	1	1	0	0	1	0	1	1	1
182	22.2	Make note of premises to make shipments	1	1	0	0	1	0	1	1	1
183	22.2	Attach paper sample onto form	1	1	0	0	1	0	1	1	1
184	22.2	Send paper samples to customers and Sergeant	1	1	0	0	1	0	1	1	1
185	22.2	Make reference Record and file names of Salesmen with name of company for future reference	1	1	0	0	1	0	1	1	1
186	22.2	Make specifications for factory orders	1	1	0	0	1	0	1	1	1
187	22.2	Take shop passes	1	1	0	0	1	0	1	1	1
188	22.2	Keep track of Live Cells	3	3	0	0	3	0	1	1	1
189	22.2	Write important notes	1	1	0	0	1	0	1	1	1
190	22.2	Reference statistics taken	1	1	0	0	1	0	1	1	1
191	22.2	Preparing income tax returns	1	1	0	0	1	0	1	1	1

TABLE XXXIII. (continued) INDUSTRIAL INVESTIGATION

TABLE XXXIII. (Continued) ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
164	83.5	Draw Chattels, Real Estate Mortgages .	1	1	0	1	0	0	1	1	1
183	83.5	Figure Interest on Loans . . . . .	1	1	0	0	1	0	1	1	1
184	83.5	Post Payments on Notes . . . . .	1	1	0	0	1	0	60	6	52
185	83.5	Make Out Interest Bills and Other Invoices. . . . .	1	1	0	0	1	0	1	1	1
186	83.5	Check Titles, Record Deeds, Mortgages, Liens, etc. . . . .	1	1	0	0	1	0	1	1	1
192	83.5	Keep Valuation, Capital and Special Reserve Accounts. . . . .	1	1	0	0	1	0	1	1	1
193	83.5	Post Payments and Increases on Personal and Collateral Loans. . . . .	1	1	0	0	1	0	1	1	1
194	83.5	Figure Interest Due on Local Mortgage Loans . . . . .	1	1	0	0	1	0	1	1	1
203	83.5	Make Addressograph Plates. . . . .	1	0	1	0	1	0	1	1	1
204	83.5	Put Headings on All Statements Going Out at End of Month . . . . .	1	1	0	0	1	0	1	1	1





TABLE XXXIII. (Continued) ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
205	83.5	Sort Mail for Different Rates and Postage. . . . .	1	1	0	0	1	0	1	1	1
207	83.5	Prepare Statement of Mortgage Loans to Be Entered for Foreclosure . . . . .	1	1	0	0	1	0	1	1	1
208	83.5	Check Report of Loans to See That Loan is Made in Accordance with Application . . . . .	1	1	0	0	1	0	1	1	1
209	83.5	Prepare Monthly Bank Report . . . . .	1	1	0	0	1	0	1	1	1
210	83.5	Read Minutes of Trustees' Meetings and see That All Notations Cited Therein Are Recorded on Bank's Records . . . .	1	1	0	0	1	0	1	1	1
243	83.5	Secure Monthly List of Recorded Mortgages, Deeds, etc., from Town Clerk's Office . . . . .	1	1	0	0	1	0	1	1	1
253	83.5	Reconcile Monthly Statements--Federal Housing Administration, Title I Loans. . . . .	1	1	0	0	1	0	1	1	1
254	83.5	Record and Report New Title I Loans Made or Refinanced . . . . .	1	1	0	0	1	0	1	1	1





TABLE XXXIII. (Continued) ADDITIONAL DUTIES---EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
255	83.5	Reconcile Treasurer's Checks and Certified Checks Semi-monthly. . . .	1	1	0	0	1	0	1	1	1
256	83.5	Prepare Applications, Notes, Mortgages, and Supporting Papers re F.H.A. Title II Loans . . . . .	1	1	0	0	1	0	1	1	1
257	83.5	Endorse Monthly Payments of Principal and Interest on Large Number of F.H.A. Title II Loans, and Pay Fire Insurance, F.H.A. Insurance, Water Rents, Village and Town Taxes of Title II Borrowers from Escrow Funds Deposited Monthly by Borrower. . . .	1	1	0	0	1	0	1	1	1
258	83.5	Check Periodically with Various Town Tax Collectors on Condition of all Taxes on Properties Bank is In- terested in as Mortgage . . . . .	1	1	0	0	1	0	1	1	1
259	83.5	Obtain Financial Statements from All Borrowers and from Those Whose Responsibility the Bank Depends on for Payments of Loans Made . . . . .	1	1	0	0	1	0	1	1	1



TABLE XXXIII. (Continued) ADDITIONAL VALUES--EMPLOYEES

Duty No.	Rank	VALUES	Yours truly	Important	Unimportant	School	Job	School-Job	Per Day Minutes	Per Week Hours	Per Year Weeks
320	82.2	for payments of loans made personally the bank records on Bollinger and from those whose orderly financial statements from W.A.	1	1	0	0	1	0	1	1	1
321	82.2	selected in as mortgage lender on properties bank is in- ter collected on condition of all check being received with Arizona loan	1	1	0	0	1	0	1	1	1
322	82.2	debated monthly by Bollinger. Little II Bollinger from Boston through Banks, Village and Loan Excess of insurance. L.H. L. Insurance, Meter. B.H. Little II Loans, and Bay Blue and interest on large number of Bollinger monthly payments of 100 dollars	1	1	0	0	1	0	1	1	1
323	82.2	Little II Loans and Bollinger's before to L.H. L. Bollinger's before to L.H. L.	1	1	0	0	1	0	1	1	1
324	82.2	Certified checks sent monthly Bollinger's statements, checks and	1	1	0	0	1	0	1	1	1

TABLE XXXIII. (Continued) ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
260	83.5	Make Semi-Annual Reports of Earnings, Dividends, Profits, Losses, Distributions, etc., to State Banking Department, Federal Supervising Authorities. . . . .	1	1	0	0	1	0	1	1	1
261	83.5	Figure Taxes on Deposits and Make Semi-Annual Reports. . . . .	1	1	0	0	1	0	1	1	1
140	83.5	<u>Retail and Wholesale</u> Finance for Business and Customers (Time Payments). . . . .	1	1	0	0	1	0	1	1	1
141	83.5	Collect Notes and Accounts. . . . .	1	1	0	0	1	0	1	1	1
142	83.5	Prepare Special Sales Report. . . . .	1	1	0	0	1	0	1	1	1
143	83.5	Assist Salesmen and Customers. . . . .	1	1	0	0	1	0	1	1	1
213	83.5	Figure Settlements to Specific Dates.	1	1	0	1	0	0	1	1	1
214	83.5	Keep List of Bankrupts. . . . .	1	1	0	0	1	0	1	1	1
215	83.5	Send for Financial Statements. . . . .	1	1	0	0	1	0	1	1	1





TABLE XXXIII. (Continued) ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
216	83.5	Prepare List of Customers to Whom We Send for Their Financial Statements .	1	1	0	0	1	0	1	1	1
217	83.5	Check Dun & Bradstreet's Reports . . . .	1	1	0	0	1	0	1	1	1
218	83.5	Mail Out Interest Letters. . . . .	1	1	0	0	1	0	1	1	1
220	83.5	Figure Prices When Prices are Advanced or Decreased. . . . .	1	1	0	0	1	0	1	1	1
242	83.5	Check Delivery Dates on Merchandise Ordered . . . . .	1	1	0	0	1	0	1	1	1
252	83.5	Keep Record of Used Cars . . . . .	1	1	0	0	1	0	1	1	1
253	83.5	Keep Record of Repairs Made to Used Cars	1	1	0	0	1	0	1	1	1
		<u>Insurance</u>									
97	8.5	Write Insurance Policies . . . . .	2	2	0	0	2	0	180	27	102
98	8.5	Bill Insurance Policies. . . . .	2	2	0	0	2	0	270	26	100
94	83.5	Send Out Collection Letters with Statements. . . . .	1	1	0	0	0	1	240	4	12





TABLE XXXIII. (Continued) ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
95	83.5	Assemble Slips Recording Insurance Policies Sent Out on Approval . . . . .	1	1	0	0	1	0	10	1	50
96	83.5	Look Up Records of Different Estates Re Bonds. . . . .	1	1	0	0	1	0	30	$\frac{1}{2}$	12
200	83.5	Record Insurance Agents' Collections . . . . .	1	1	0	0	1	0	--	--	--
201	83.5	Post Commissions on Insurance Agents' Vouchers. . . . .	1	1	0	0	1	0	--	--	--
202	83.5	Receive and Check Receipts on Ordinary, Intermediate, Interest, and Loan, and Accident and Health Receipts. . . . .	1	1	0	0	1	0	--	--	--
206	83.5	Enter Policies on Ledger Cards and Expiration Cards. . . . .	1	1	0	0	1	0	--	--	--
230	83.5	Record Insurance Policies. . . . .	1	1	0	0	1	0	--	--	--
235	83.5	Keep Insurance Register. . . . .	1	1	0	0	1	0	--	--	--
225	3.5	<u>Schools</u> Prepare Teachers' Contracts in Triplicate . . . . .	3	3	0	0	3	0	60	2	1



Day No.	Year	Activity	Yanapets	Stratigmt	Unexplored	Looked	Top	Top-Loaded	Per Day Minutes	Per Week Hours	Per Year Weeks
229	22	Unfinished . . . . . Pacheco's Logbook, Comparison in Records	2	2	0	0	0	2	0	30	1
230	22	Looked Pacheco's Logbook . . . . .	1	1	0	0	1	1	0	--	--
231	22	Record Pacheco's Logbook . . . . .	1	1	0	0	1	1	0	--	--
232	22	Unfinished Logbook . . . . .	1	1	0	0	1	1	0	--	--
233	22	Unfinished and Pacheco's Logbook . . . . . Interpretation, Interpretation, and Logbook Records and Check Records on Originals	1	1	0	0	1	1	0	--	--
234	22	Unfinished . . . . . Looked Comparison on Pacheco's Logbook	1	1	0	0	1	1	0	--	--
235	22	Record Pacheco's Logbook, Collections . . . . .	1	1	0	0	1	1	0	--	--
236	22	Looked Pacheco's Logbook, Collections . . . . . No Record . . . . .	1	1	0	0	1	1	0	30	13
237	22	Unfinished Logbook and Pacheco's Logbook . . . . . Unfinished Logbook and Pacheco's Logbook	1	1	0	0	1	1	0	10	20

TABLE 1. (Continued) VOLUME 1. 1911-1912

TABLE XXXIII. (Continued) ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
224	8.5	List School Supplies for Bids in June. . .	2	2	0	0	2	0	1	1	1
226	8.5	Prepare Annual State Report for State Department. . . . .	2	2	0	0	2	0	1	1	1
123	83.5	Interview Parents. . . . .	1	1	0	0	1	0	1	1	1
124	83.5	Keep Mailing List Up To Date . . . . .	1	1	0	0	1	0	1	1	1
125	83.5	Proofread for Print Shop . . . . .	1	1	0	0	1	0	1	1	1
126	83.5	Keep Accurate Records of Individual Children. . . . .	1	1	0	0	1	0	1	1	1
222	83.5	Prepare Monthly Financial Reports for Directors . . . . .	1	1	0	0	1	0	1	1	1
223	83.5	Prepare Tuition Bills and Keep Record. . .	1	1	0	0	1	0	1	1	1
236	83.5	Check Registers. . . . .	1	1	0	0	1	0	10	3	3
238	83.5	Record Marks . . . . .	1	1	0	0	1	0	120	10	6
239	83.5	Prepare Transcripts (Pupils Transferred to Another School). . . . .	1	1	0	0	1	0	15	$\frac{1}{2}$	50





TABLE XXXIII. (Continued) ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
240	83.5	Prepare Town and State Reports . . . . .	1	1	0	0	1	0	260	36	6
241	83.5	Prepare Monthly Reports to State Department . . . . .	1	1	0	0	1	0	60	1	10
		<u>Railroad</u>									
106	83.5	Type Freight Bills . . . . .	1	1	0	0	1	0	75	8	52
107	83.5	Prepare Abstract of Waybills . . . . .	1	1	0	0	1	0	25	2	52
108	83.5	Compile and Prepare Report of Freight Cars Arriving and Leaving Railroad Station . . . . .	1	1	0	0	1	0	80	8	52
109	83.5	Make Interchange Report and Check (Changing Cars on Trains from One Track to Another) . . . . .	1	1	0	0	1	0	60	6	52
110	83.5	Prepare Statements of Freight Bills . . . . .	1	1	0	0	0	1	20	2	52
111	83.5	Stamp Freight Bills, Put in Rack and Send Postal Notices . . . . .	1	1	0	0	1	0	20	2	52
112	83.5	Prepare Man Hour Report from Pay Roll. . . . .	1	1	0	0	1	0	10	1	52





TABLE XXXIII. (Continued) ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
127	83.5	Keep List of Yard Cars . . . . .	1	0	1	0	1	0	10	1	52
128	83.5	Get List of Cars from One Yard to Another . . . . .	1	0	1	0	1	0	30	3	52
129	83.5	Classify Cars. . . . .	1	1	0	0	1	0	20	2	52
		<u>Employment</u>									
148	83.5	Post Check Stubs of Unemployment Com- pensation . . . . .	1	1	0	0	1	0	--	--	--
149	83.5	Record Visits Made by Manager to Various Employers . . . . .	1	1	0	0	1	0	--	--	--
		<u>Municipal</u>									
172	83.5	Distribute Surplus Commodities (Welfare)	1	1	0	0	1	0	300	5	26
173	83.5	Prepare Tax Books--Poll, Grand List, Town, and Village . . . . .	1	1	0	0	1	0	480	44	20
178	83.5	Food Stamp Plan. . . . .	1	1	0	0	1	0	80	8	50
179	83.5	State Aid Reports. . . . .	1	1	0	0	1	0	60	1	50
180	83.5	Poor Department Work . . . . .	1	1	0	0	1	0	120	18	50



Page No.	Rank	Frequency	Importance	Unimportance	Group	Group-Top	Per Day Minutes	Per Week Hours	Per Year Weeks
130	82.8	Book, Robinson's Book . . . . .	1	1	0	0	130	12	20
131	82.8	State and Relations . . . . .	1	1	0	0	80	1	20
132	82.8	Book, Smith's Book . . . . .	1	1	0	0	80	8	20
133	82.8	Book, and Relations . . . . .	1	1	0	0	480	4	30
134	82.8	Book, and Relations . . . . .	1	1	0	0	200	2	20
135	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
136	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
137	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
138	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
139	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
140	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
141	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
142	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
143	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
144	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
145	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
146	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
147	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
148	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
149	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1
150	82.8	Book, and Relations . . . . .	1	1	0	0	1	1	1

TABLE 10. (continued) UNCLASSIFIED DATA--EXCLUDED

TABLE XXXIII. (Continued) ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-job	Minutes Per Day	Hours Per Week	Weeks Per Year
187	83.5	Report Births, Marriages, and Deaths to State . . . . .	1	1	0	0	1	0	--	--	--
188	83.5	Make Out Licenses . . . . .	1	1	0	0	1	0	--	--	--
247	83.5	Sale of Food Stamps . . . . .	1	1	0	0	1	0	120	2	52
249	83.5	Fill Out WPA Forms . . . . .	1	1	0	0	1	0	15	1	52
146	83.5	<u>Express</u> Rate Freight Shipments . . . . .	1	1	0	0	1	0	60	6	52
147	83.5	Route Freight Shipments . . . . .	1	1	0	0	1	0	60	6	52
190	83.5	Set Up Tariffs . . . . .	1	1	0	0	1	0	--	--	--
191	83.5	Report Accidents . . . . .	1	1	0	0	1	0	--	--	--
231	83.5	<u>Law</u> Type Journal of Vermont Senate During Biennial Sessions . . . . .	1	1	0	0	1	0	--	--	--
232	83.5	Assist in Getting Out Permanent Journal of Senate by Indexing, Proofreading .	1	1	0	0	1	0	--	--	--





TABLE XXXIII. (Continued) ADDITIONAL DUTIES--EMPLOYEES

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
102	83.5	Doctors Attend Patients under Doctor's Super- vision. . . . .	1	1	0	0	1	0	--	--	--
		<u>Publishing Newspaper</u>									
113	83.5	Prepare Cost Sheets for Preparing Newspaper . . . . .	1	1	0	0	1	0	120	2	12
114	83.5	Send Monthly Form Letters for Sub- scriptions to Newspaper . . . . .	1	1	0	0	1	0	--	8	12
117	83.5	Keep Circulation Ledger and Reports. . . . .	1	1	0	0	1	0	--	4	52
119	83.5	Type Cost Sheets . . . . .	1	1	0	0	0	1	--	4	12





TABLE XXXIV. ADDITIONAL DUTIES--EMPLOYERS

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job
		<u>General</u>						
90	10.5	Figure Stock Turnover . . . . .	1	1	0	0	1	0
113	10.5	Operate Multigraph. . . . .	1	0	1	0	0	1
		<u>Schools</u>						
93	10.5	Keep Index Cards for Cases and Homes. . . . .	1	1	0	0	1	0
94	10.5	Send in Reports to Central Index (Confidential Registry of Cases) . . . . .	1	1	0	0	1	0
95	10.5	Keep Financial Records for Special Children . . . . .	1	1	0	0	1	0
96	10.5	Monthly Reports of Work Done. . . . .	1	1	0	0	1	0
108	10.5	Relay Instructions to Teachers. . . . .	1	1	0	0	1	0
109	10.5	Prepare Reports for Board of Education. . . . .	1	1	0	0	0	1
110	10.5	Make Statistical Studies. . . . .	1	1	0	0	0	1
111	10.5	Correct Test Papers . . . . .	1	1	0	0	0	1
112	10.5	Collect Information About Candidates for Teaching Positions. . . . .	1	1	0	0	1	0



Day No.	Rank	Yankee	Important	Unimportant	Looked	del	del-looked
118	10.2	Loafers.	1	1	0	1	0
119	10.2	Collect information about candidates for Teaching	1	1	0	0	1
120	10.2	Collect Test Papers	1	1	0	0	1
121	10.2	Make Statistical Studies	1	1	0	0	1
122	10.2	Prepare Reports for Board of Education	1	1	0	0	1
123	10.2	Reply Inquiries to Teachers	1	1	0	1	0
22	10.2	Monthly Reports of Work Done	1	1	0	1	0
23	10.2	Keep Elementary Records for Special Children	1	1	0	1	0
24	10.2	Regularity of Cases (Confidential)	1	1	0	1	0
25	10.2	Send in Reports to Central Index	1	1	0	1	0
26	10.2	Keep Index Cards for Cases and Homes	1	1	0	1	0
27	10.2	Specials	1	1	0	1	0
28	10.2	Operate Multiplier	1	0	1	0	1
29	10.2	Prepare Stock Ledger	1	1	0	1	0

RECORDS--STREET DIRECTORY

PAGE XXXV

TABLE XXXIV. (Continued) ADDITIONAL DUTIES--EMPLOYERS

Duty No.	Rank	DUTIES	Frequency	Important	Unimportant	School	Job	School-Job
103	10.5	<u>Banks</u> Study Deposit Reserve Requirements . . . . .	1	1	0	0	1	0
104	10.5	Study Stock and Bond Conditions. . . . .	1	1	0	0	0	1
105	10.5	Study Real Estate Values, Insurance, etc. . . . .	1	1	0	0	1	0
106	10.5	Classify Notes, Compute Interest, Maturities . . . . .	1	1	0	0	0	1
107	10.5	Become Familiar with Signatures, Traits. . . . .	1	1	0	0	0	1
97	10.5	<u>Doctors and Social Service</u> Transcribe Case Histories. . . . .	1	1	0	0	1	0
98	10.5	Transcribe Articles and Manuscripts. . . . .	1	1	0	0	1	0
99	10.5	Transcribe Minutes of Meetings . . . . .	1	1	0	0	1	0
100	10.5	Transcribe Medical Records . . . . .	1	1	0	0	1	0



Box No.	Bank	Inventory	Photograph	Photograph	del	del-Loose
100	10.2	Manuscript Review Record . . . . .	1	1	0	0
99	10.2	Manuscript Review of Meeting . . . . .	1	1	1	0
98	10.2	Manuscript Review and Manuscript . . . . .	1	1	1	0
97	10.2	Manuscript Case History . . . . .	1	1	1	0
101	10.2	Became familiar with situation, life . . . . .	1	1	0	1
102	10.2	Classical notes, complete interest, specimens . . . . .	1	1	0	1
103	10.2	Study West State Agency, insurance, etc. . . . .	1	1	0	0
104	10.2	Study West State Agency, insurance, etc. . . . .	1	1	0	1
105	10.2	Study West State Agency, insurance, etc. . . . .	1	1	0	0
106	10.2	Study West State Agency, insurance, etc. . . . .	1	1	0	0
107	10.2	Study West State Agency, insurance, etc. . . . .	1	1	0	0
108	10.2	Study West State Agency, insurance, etc. . . . .	1	1	0	0
109	10.2	Study West State Agency, insurance, etc. . . . .	1	1	0	0

MILLS

EVERETT M. MILLS (Continued) ADDITIONAL MILLS-ETHEL

The data shown for each duty are: (1) frequency of mention, (2) number voting the duty important and unimportant, (3) number of votes in favor of learning the activity in school, on the job, or in school and on the job.

### Conclusions

1. It is possible to give at least instruction on the acquaintanceship level for some of the duties found in Table XXXIII, Pages 150-165, under "General." For instance, "Balance Cash Weekly" is not much different from "Balance Cash Daily" except for length of time. Therefore, if "Balance Cash Daily," which was performed by 63 out of the 168 employees, should be taught in school, then the pupils can be made acquainted with "Balance Cash Weekly." Similarly, some dictation directly on the typewriter may be given. This will help to develop in the pupils the ability to type words instead of individual letters, which is a step toward developing speed in typewriting.
2. Because of the specialized character of the remainder of the duties, it would be futile to attempt to teach any of them in school. What can be done is to develop in the pupils the ability to adapt themselves to accepting different types of work. They





must be given that occupational intelligence background that will make it possible for them to easily become acquainted with and adapted to the individual type of work into which they will enter. Through this training they may at least become acquainted with the terminologies, organization, and activities of various types of business establishments and policies.

#### Problems Solved on the Calculator

The Check List of Duties (Schedule B, Pages 192-196) that was mailed to employees contained space for the employees to describe the types of problems they solved when using the calculator for each of the four arithmetical processes. Only 34 out of the 168 replies (20%) gave any data concerning this phase of the study. Some employees who were followed up on this part of the check list claimed that the calculator was used in conjunction with the activities performed, such as figuring pay rolls, making statements, invoices, balancing accounts, etc.

The types of problems ranking highest in frequency were those involving the process of addition, with multiplying, subtracting, and dividing following respectively. The purpose for collecting these data was to determine how much instruction could be given





in school along the lines described by these office workers. An asterisk preceding some of the problems listed below indicates those problems that could be taught in school.

### Addition

The types of problems which involved addition that were solved on the calculator are:

- \*1. Balance accounts
- \*2. Prepare statements
- \*3. Figure invoices
- 4. Check billing
- \*5. Figure rents
- \*6. Total bills
- \*7. Balance ledgers
- 8. Audit books
- \*9. Figure pay rolls
- \*10. Find sales, costs, daily profits
- \*11. Add columns of figures
- \*12. Figure tax bills, water bills
- 13. Total pounds of milk each producer sends per month
- 14. Perpetual inventory
- 15. Figure incoming stock for manufacturing
- \*16. Get sub totals and totals in budget and expense accounts
- 17. Figure shipments
- \*18. Figure orders
- 19. Total checks and records of checks
- 20. Find total premiums at end of month
- 21. Check school registers
- 22. Average tests given to school pupils

### Multiplication

Problems involving the multiplication process are presented below:

- 1. Figure rates and wages
- 2. Figure coal invoices and inventory
- 3. Figure freight bills





- \*4. Figure pay rolls
- \*5. Compile statements
- \*6. Compute interest, dividends, service fees
- 7. Recheck daily billing
- 8. Billing
- 9. Total pounds of milk by test to find pounds of butterfat
- 10. Total pounds of butterfat by price to get total credits
- \*11. Tax bills, water bills
- \*12. Weight by rate (express company)
- \*13. Figure orders
- \*14. Policy amount by rate
- 15. Prorating expenses

### Subtraction

Problems solved requiring the subtracting process are:

- \*1. Figure invoices
- \*2. Balance ledgers
- 3. Credits on notes and property exchange
- \*4. Total charges from total credits to get amount of checks
- \*5. Tax bills, water bills
- 4. Instr 6. Figure group insurance
- 7. Figure shipments
- pupil 8. Premiums minus dividends

### Division

The problems that office workers solve that require the use of the calculator for dividing purposes are:

- 1. Distribution of labor hours
- 2. Determine weights (express company)
- 3. Figure inventory
- \*4. Figure monthly payments (time and installment payments)
- 5. Change pounds of milk to quarts
- 6. Percentages
- 7. Figure rates of pay roll
- 8. Rate for one year (insurance)





Conclusions

1. Prospective office workers should be made proficient in the use of the calculator, especially for addition and multiplication purposes.
2. The instruction along this line should be as practical as possible. The problems listed above serve as suggestions for practical instruction in the use of the calculator.
3. The problems marked with an asterisk are practical from the point of view of the office workers studied. They can be very easily worked into the various commercial courses of study so that future office workers will be able to handle with some degree of efficiency problems of these various types.
4. Instructors of bookkeeping should encourage their pupils to use the calculator for preparing statements, figuring invoices and orders, balancing accounts, special books of original entry, calculating installments, etc.
5. Commercial arithmetic instruction can be made to include some of these problems even if the calculator is not used. The pupils will at least become acquainted with the types of problems that they will have to solve on the job and that is just as important, if not more so, than using the calculator for obtaining the solutions. Once the individual knows the





method of solution for the various problems, he can very easily work them out on the calculator when he is taught how to use the machine.

6. Such specialized problems as "Total Pounds of Milk Multiplied by Test to Find Pounds of Butterfat" and "Check School Registers" apply to certain types of offices and are best learned on the job.

1. The sample of 10,000 population or less through employees and employers' judgments as a basis for determining what should be the content of the commercial education curriculum for high schools in such communities.
2. Data were collected in Dallas, Falls, Springfield, and Springfield, Missouri.
3. The employees and employers supplied the data were from five general fields of work, manufacturing, retailing, wholesale, professional, and education, with a number from offices that could not be given any general classification.
4. The number of employees represented in this study were 197 and employers, 78.
5. Data were collected by means of a check list of duties, responsibilities, and training needs, and submitted to employees and employers who were interviewed personally, through others, or directly by office employees. The





CHAPTER XII  
SUMMARY AND CONCLUSIONS

General Summary

1. The purpose of this study has been to analyze the duties and personality traits of office workers in communities of 10,000 population or less through employees' and employers' judgments as a basis for determining what should be the content of the commercial education curriculum for high schools in such communities.
2. Data were collected in Bellows Falls, Brattleboro, and Springfield, Vermont.
3. The employees and employers solicited for data were from five general fields of business--manufacturing, retailing, financial, professional, and wholesale--with a number from offices that could not be given any general classification.
4. The number of employees represented in this study totals 168 and employers, 78.
5. Data were collected by means of a check list of duties, personality trait ranking sheet, and education information form which were distributed personally, through others, or mailed to office employees. The





- check lists were to supply data as to important and unimportant duties, duties that were to be learned in school, on the job, or in school and on the job, and the approximate time spent on each duty in terms of minutes per day, hours per week, and weeks per year.
6. Additional data were obtained by means of a check list of duties and a personality trait ranking sheet from employers.
  7. The 109 duties of the employees and 92 of the employers were tabulated into two tables--Frequency Ranking by Employees and Frequency Ranking by Employers.
  8. Stenographic and clerical duties were predominant activities in the office workers' daily routine.
  9. The 109 duties of the employees and 92 duties of the employers were divided into deciles based on frequency of performance and frequency of mention.
  10. Tables of significant duties presenting frequency of performance, decile rank, and relative importance of duties were organized.
  11. From the tables of significant duties were selected those duties that should be taught in school. These were determined on the basis of decile rank, frequency of performance and mention, number of votes advocating teaching the duties in school and school-job, per cent in favor of learning activity in school and school-job. Indication was made as to whether





the activities should be taught on the mastery level or acquaintanceship level of instruction.

12. The combined judgments of employees and employers were presented, showing very little disagreement between the two groups. Employees and employers rank bookkeeping, stenographic, and clerical duties as important parts of an office worker's activities.
13. The duties to be learned on the job were organized into table form. These were selected on the basis of decile rank, frequency or infrequency of performance and mention, number of votes in favor of teaching the activities on the job, per cent in favor of learning the activities on the job. These duties are more or less specialized in nature and pertain to the particular business where the office worker is employed.
14. The personality traits were tabulated from the returns received. Three tabulations for each the employees' and employers' judgments were worked out:
  - (1) Ranking of Traits, (2) Rank Order of Traits, (3) Traits Presented According to Groups. The comparative judgments of both groups were then presented in another table. The votes given to the ranking of the traits were weighted by the inverse ratio method in order that a more accurate rank order of the traits might be obtained. Traits pertaining to the efficient accomplishment of the day's work rank high, with





traits characteristic of an individual's association with others ranking next in order.

15. Traits were consolidated with the activities to be taught in school to determine which traits were involved in the performing of each activity.
16. Data regarding the education of the office workers were collected on the Education Information Form distributed to the employees. The majority of office workers (77%) receive their business training in high school.
17. Office workers' check list of duties returns supplied a number of additional duties which they perform. A total of 170 different duties was collected from these returns. From the employers' returns only 24 additional duties were collected. These duties were presented in two separate tables, representing specialized duties of the various businesses surveyed that cannot be taught in school and must be learned on the job.
18. Data regarding the types of problems solved on the calculator were collected. The data received were rather limited in this respect, but some suggestions were received as to practical problems that might be taught in school.





## Conclusions

### Personnel of Study

1. The employees included in this study were from the towns of Bellows Falls, Brattleboro, and Springfield, Vermont. The percentage distribution for each community was 55%, 29%, and 16% respectively. The percentage of distribution of employers was Bellows Falls, 46, Brattleboro, 37, and Springfield, 17.
2. The employees and employers were selected from the various fields of business. The percentage of distribution for employees was: manufacturing, 45%; retailing, 40%; financial, 27%; professional, 13%; wholesale, 1%; miscellaneous offices, 42%. The distribution of employers was: retailing, 23%; manufacturing, 14%; financial, 13%; professional, 8%; wholesale, 1%; miscellaneous offices, 19%. The largest number of employees find employment in offices of manufacturing concerns, with employees finding employment in miscellaneous offices--plumbing, printing, municipal, public service, etc.--ranking next. The retailing field also offers employment for a good percentage of office workers--40%. The retailing field heads the list for employers because the ratio of employer-employee is lower in the retailing field than in the manufacturing field.





3. The sex distribution is decidedly in favor of the women, with 81% making up the women office workers and 19% the men. This would seem to indicate that there is not much demand for members of the male sex as office workers in these small communities. Boys in high school, unless they are exceptionally proficient in commercial work, should not be over-urged to take the commercial course.

#### Activities of Workers

1. Bookkeeping duties are ranked high by employees and employers as to frequency of performance and mention. The amount of time spent on each of the duties is significant. Of the 13 bookkeeping duties on the original check list, 12 rank within the first five deciles, with unanimous voting by employees and employers for school instruction for all twelve and all to be taught on the mastery level.
2. The stenographic duties "Take Dictation" and "Transcribe from Shorthand Notes" rank in the first decile by employees and employers, also with unanimous voting for school instruction on the mastery level. Employees spend more minutes per day (2,650 and 3,560) and hours per week ( $246\frac{1}{2}$  and  $340\frac{1}{2}$ ) on these duties than on any other single duty submitted for their consideration. The stenographic duty





"Compose Letters for Employer" ranks within the first decile according to employees' rankings and within the fourth decile according to employers' rankings. Both groups, however, consider it important and recommend school and school-job learning for the activity.

3. The various interpretations of the workers' activities, both from the employees' and employers' points of view, indicate a predominance of clerical duties, but not so much time is spent on each individual duty as on each of the bookkeeping and stenographic duties. All of the 32 duties appearing on the original check list were performed by office workers and were required by employers. Of this number, 13 were recommended for school instruction by employers and 11 by employees, some of which should be taught on the mastery level and others on the acquaintanceship level. Clerical duties of a general nature--common to a number of businesses--rank within the first six deciles.
4. Some of the clerical duties may better be learned on the job. Employees' judgments place 21 out of the 32 from the original check list to be learned on the job, with 11 additional duties suggested by the office workers. Employers' judgments place 19 and one additional duty suggested by them in the job-learning





classification. Specialized duties that pertain to certain types of businesses should not be taught in school.

#### Personality Traits

1. The combined judgments of employees and employers rank accuracy decidedly as the most important trait an office worker should possess.
2. Employers and employees place more importance on traits that pertain to the actual performing of the office activities, such as accuracy, intelligence, efficiency, concentration, judgment, and initiative than on traits that are indicative of an individual's attitudes and actions toward others.
3. It is evident that office workers are required to possess more than mere technical skill to be able to keep a job and succeed on it. More emphasis should be placed on developing in the pupils those personal qualities that they will need to be a success in their work.
4. It is possible for teachers of commercial subjects to develop the desirable traits of office workers as shown in Table XXIX, Pages 95-96, through formal class instruction and in their associations with the pupils. The table of consolidated traits and activities presented in this study indicates the traits





involved in the activities that are to be taught in school.

5. Commercial education courses of the vocational type should be recommended to pupils having a high native intelligence and possessing the mental capacity to work accurately and efficiently with a minimum amount of supervision.

#### Education and Placement

1. Of the 168 office workers surveyed in this study, 147 (88%) received their general education in high school.
2. Office workers in the communities studied depend a great deal on their high school for their business education. Of the 168 employees, 102 (61%) received their business training in high school, 29 (17%) in private business schools, and 21 (13%) in both high school and private business schools. Ten of the office workers (6%) received no business training and six (3%) left high school to attend private business school.
3. The high schools in these small communities must assume the responsibility of training their commercial education pupils to enter office jobs after high school graduation.





4. The data collected indicate that high school graduates in these communities are employed within their own communities. In two of the towns, Brattleboro and Springfield, there is a 100% placement within the town. In Bellows Falls, placement within the town is 82%, outside the town 18%, with 11% placement in Springfield in the manufacturing plants, and 7% in other small surrounding towns.
5. A functioning placement service in cooperation with business houses should be an important part of the commercial departments of the high schools.

#### A Suggested Commercial Curriculum

The following is a suggested commercial curriculum for the high schools concerned in this study and for high schools located in communities similar to those surveyed in this research. The core commercial curriculum with the time to be given to each subject is presented for each year of the high school from the ninth grade through the twelfth grade. The courses suggested ought to include instruction that will teach the activities and develop the traits as determined by this study.

##### Ninth Year

Junior Business  
Training . . . . 1

##### Tenth Year

Commercial Geography  
and Consumer Education . . . . . 1





Eleventh Year

Commercial Law and

Business Principles . . . . . 1

Office Training . . . . . 2

Twelfth Year

Consumer Economics

and Buying . . . . . 1

Office Training . . . . . 2

The above subjects will give pupils the required vocational training to enter initial-contact jobs and to succeed on them.

The duties determined by this study to be taught in school can be broken up into units of instruction. They would thus form the basis for planning the teaching of the Office Training course recommended for the eleventh and twelfth years. This course would be offered for one double period and taught by one teacher. The eleventh year content of the course would be shorthand, typewriting, and bookkeeping instruction. For the twelfth year, the content would be of an office practice nature, consisting of speed dictation, transcription, typing, clerical practice, and any other instruction necessary to teach the duties as recommended by this research.

The business background subjects--Commercial Geography and Consumer Education, Commercial Law and Business Principles, Consumer Economics and Buying--will give the pupils that "occupational intelligence" which will enable them to adapt themselves to their work and to become





easily adjusted to new situations as they occur on the job. The vocational specialization offered through the Office Training course should prepare the pupils to perform satisfactorily the activities of office workers in the communities surveyed in this study.

The outstanding personality traits required of office workers can be developed through formal class instruction in the courses mentioned above and in the pupils' associations with their fellow pupils and teachers. The inclusion of discussions in the office training class of topics from such a book as "What Do I Do Now?",<sup>17</sup> or similar text, will go a long way toward developing some of these important personality traits. The use of personality rating scales is also an effective method.

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17. Mildred M. Payne, What Do I Do Now? New York: Gregg Publishing Company, 1940. 120 pp.





## CHAPTER XIII

### RECOMMENDATIONS FOR FURTHER STUDY

1. Further analyses should be made of the duties of office workers in other small communities for comparisons to be made with the present study.
2. Further analyses should be made of the essential traits of office workers in other small communities and the rankings compared with those of the present study.
3. The present study indicates those duties that should be learned in school and which on the job. It would be of value to find out from some of the office workers how they undertake the self-learning of an activity on the job.
4. This study attempted to recommend vocational courses to be included in the commercial curriculum so that the duties to be taught in school as suggested by this study would be included in the high school courses of instruction. A field of research is open here for evaluating the commercial curriculum through an analysis of office workers' judgments on the vocational training they received in school--in what ways was it weak and wherein could it be improved.





186

8. Nichols, Frederick G. et al. A New Conception of Office Practice. Cambridge: Harvard University Press, 1934. 105 pp.

An analysis of the duties performed by non-secretaries and secretaries in business.

### ANNOTATED BIBLIOGRAPHY

1. Barnhart, Earl W. An Analysis of the Work of a Stenographer. New York: Gregg Publishing Co., 1927. 36 pp.

Preliminary study intended to throw some light on the problem of developing reporting ability. A brief summary of what is known and to reveal some of the problems worth careful study. Analysis of what stenographer does when taking dictation.

2. Charters, W. W. and Whitley, Isadore B. Analysis of Secretarial Duties and Traits. Baltimore: Williams and Wilkins Co., 1924. 186 pp.

Study of the duties of secretaries and traits necessary for an individual to succeed as a secretary. Good reference for technical treatment of data. Very detailed study. Suggestions for conducting interviews.

3. Eyster, Elvin S. "An Analysis of the Duties of Bookkeepers." Unpublished Master's Thesis. Bloomington, Indiana: University of Indiana, 1931. vi + 194 pp.

An analysis of the duties of bookkeepers. Contains helpful suggestions for securing data and for technical treatment of data.

4. Lomax, Paul S. Commercial Teaching Problems. New York: Prentice-Hall, Inc., 1932. 200 pp.

A guide to course of study construction. Methods of selecting subject matter for commercial education courses.

5. Nichols, Frederick G. and Wissmann, Sally W. The Personal Secretary: Differentiating Duties and Traits. Cambridge: Harvard University Press, 1934. 105 pp.

Study of secretaries' duties and traits to arrive at definition of personal secretary. Good reference for technical treatment of data and interpretation of data.





6. Nichols, Frederick G. et al. A New Conception of Office Practice. Cambridge: Harvard University Press, 1927. 123 pp.

An analysis of the duties performed by non-stenographic and non-bookkeeping clerical workers. A study to determine what part office machines should play in commercial education. An attempt to differentiate the duties so as to reveal those for which vocational training can and should be given in school.

7. Nyquist, Reuben E. "Analysis of Bookkeepers' Duties." Unpublished Master's Thesis. Iowa City, Iowa: University of Iowa. 1928. 61 pp.

A study of the duties of bookkeepers in Mason City, Iowa. Consideration given to length of time (minutes) devoted to each duty.

8. Payne, Mildred M. What Do I Do Now? New York: Gregg Publishing Co., 1940. 120 pp.

A guide to correct conduct and dress for business people. The material presented is intended to improve the personalities of prospective office workers and teachers.

9. Skene, Etta C. "Occupational Analysis As a Basis of Bookkeeping Curricula of Public Secondary Schools." Unpublished Doctor's Thesis. New York: New York University, 1934. 203 pp.

An analysis of the bookkeeping activities involved in business occupations as a basis for determining the content of courses of study in secondary schools which include bookkeeping activities. Decile rank used for ranking of duties.

10. Statistical Abstract of the United States. 1936. United States Department of Commerce, Bureau of Foreign and Domestic Commerce. Washington, D. C., 1936. p. 64.

Statistics concerning number of and ages of workers in different lines of business.





11. Strumpf, Benjamin. "Bookkeeping Duties and the Commercial Curriculum." Unpublished Doctor's Thesis. New York, New York: New York University. 1936. 102 pp.

A job analysis of the duties of bookkeepers and how these duties may be analyzed for revising the bookkeeping course of study.

12. Wessels, O. R. "A Job Analysis of Bookkeeping Duties of Executives." Unpublished Master's Thesis. Iowa City, Iowa: University of Iowa, 1932. 150 pp.

Job analysis of duties performed by executives in Iowa, eastern Nebraska, and western Illinois, to determine any changes that need to be made in the high school bookkeeping course of study.





## APPENDIX





# SCHEDULE A

## TIME ANALYSIS CHART

DUTIES	8:00-9:00	9:00-10:00	10:00-11:00	11:00-12:00	12:00-1:00	1:00-2:00	2:00-3:00	3:00-4:00	4:00-5:00
1. Take Dictation. . . . .									
2. Transcribe from Shorthand Notes. . . . .									
3. Type from Copy:									
a. Letters. . . . .									
b. Articles, Manuscripts. . . . .									
c. Case Histories . . . . .									
d. Legal Documents. . . . .									
e. Minutes of Meetings. . . . .									
f. Bills, Invoices. . . . .									
g. Checks . . . . .									
h. Orders . . . . .									
i. Cut Stencils . . . . .									
4. Clerical Duties:									
a. Keep Petty Cash Book . . . . .									
b. Keep Books and Ledgers . . . . .									
c. Make Journal Entries . . . . .									
d. Balance Cash Daily . . . . .									
e. Rule Ledger. . . . .									
f. Take Trial Balance . . . . .									
g. Make Monthly State-ments . . . . .									
h. Write Receipts . . . . .									
i. Check Bills and In-voices. . . . .									
j. Figure Pay Rolls . . . . .									
k. Order Supplies for Office. . . . .									
l. Figure Inventory . . . . .									
m. Make Bank Deposit. . . . .									
n. Operate Calculating Machine:									
Adding . . . . .									
Subtracting. . . . .									
Multiplying. . . . .									
Dividing . . . . .									





SCHEDULE A (Continued)

[illegible]





SCHEDULE B

## CHECK LIST OF DUTIES TO EMPLOYEES

DUTIES	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
<u>I. Keep Books and Ledgers:</u>								
1. Make Journal Entries . . .								
2. Keep General Ledger. . .								
3. Keep Petty Cash Book . . .								
4. Balance Cash Daily . . .								
5. Keep Sales Ledger. . . . .								
6. Keep Purchases Ledger. . .								
7. Keep Accounts Payable Ledger . . . . .								
8. Keep Accounts Receivable Ledger. . . . .								
9. Take Trial Balance . . .								
10. Prepare Profit and Loss Statement . . . . .								
11. Prepare Balance Sheet. . .								
12. Keep Expense Accounts. . .								
13. Post Salesmen's Commis- sions . . . . .								
<u>II. 14. Filing. . . . .</u>								
<u>III. Stenographic Duties:</u>								
15. Take Dictation. . . . .								
16. Transcribe from Short- hand Notes . . . . .								
17. Type from Dictating Machine. . . . .								
18. Shave Dictaphone Rec- ords . . . . .								
19. Compose Letters for Employer . . . . .								
<u>IV. Clerical Duties:</u>								
20. Check Bills and In- voices . . . . .								
21. Record Invoices . . . . .								





SCHEDULE B (Continued)

DUTIES	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
22. Operate Calculating Machine:								
a. Adding . . . . .								
(1) Describe problems solved:								
b. Subtracting . . . . .								
(1) Describe problems solved:								
c. Multiplying . . . . .								
(1) Describe problems solved:								
d. Dividing . . . . .								
(1) Describe problems solved:								
23. Order Supplies for Office . . . . .								
24. Make Bank Deposit . . . . .								
25. Make Out Receipts . . . . .								
26. Figure Pay Rolls . . . . .								
27. Prepare Pay Roll Report								
28. Assemble Orders and Attach Bills of Lading . . . . .								
29. Look Up Dates for Shipping Merchandise . . . . .								
30. Put Up Paper Samples . . . . .								
31. Receive and Record Cash of Delivery Truck Drivers . . . . .								
32. Assemble Case Records . . . . .								
33. Make Out Social Security and Unemployment Reports . . . . .								





SCHEDULE B (Continued)

DUTIES	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
34. Pay Bills . . . . .								
35. Check Credit on Customers. . . . .								
36. Make Out Notes. . . . .								
37. Send Out Collection Letters. . . . .								
38. Record New Employees. .								
39. Make Out Separation Notices--Employees Leaving Job. . . . .								
40. Prepare Income Tax Returns. . . . .								
41. Cash Money Drawer and Clear Cash Register.								
42. Make List of Employees' Wages, Send Copy to Government, and Give Each Employee a Copy of His Report. . . .								
43. Order Merchandise . . .								
44. Assemble Slips Record- ing Merchandise Sent Out on Approval. . .								
45. Credit Checks Received for Settling Estates								
46. Indexing. . . . .								
47. Look Up Records of Different Estates. .								
48. Answer Telephone. . . .								
49. Clean Files . . . . .								
50. Operate Addressograph .								
51. Record Probate Records for Settling Estates								
V. <u>Type from Copy:</u>								
52. Letters . . . . .								
53. Orders. . . . .								
54. Bills, Invoices . . . .								
55. Checks. . . . .								
56. Case Histories. . . . .								
57. Articles, Manuscripts .								
58. Legal Documents . . . .								





SCHEDULE B (Continued)

DUTIES	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
59. Minutes of Meetings . . .								
60. Cut Stencils. . . . .								
61. Receiving Report on Car of Paper . . . . .								
62. Medical Records . . . . .								
63. Registration Cards (Employment Office).								
64. Court Order on Estate . .								
VI. <u>Operate Duplicating Machines:</u>								
65. Mimeograph. . . . .								
66. Hectograph. . . . .								
VII. <u>Mailing Duties:</u>								
67. Get Mail at Post Office								
68. Read, Sort, and Classi- fy Mail. . . . .								
69. Address Envelopes, Packing Slips. . . . .								
70. Fold Letters and In- sert in Envelopes. . .								
71. Take Mail to Post Office								
VIII. <u>Meeting and Handling People:</u>								
72. Wait on Customers . . .								
73. Hear Complaints in Of- fice and Over Tele- phone. . . . .								
74. Make Engagements and Appointments . . . . .								
75. Keep Employer Reminded of Engagements . . .								
76. Consultation in Regard to Settling Estates.								
IX. <u>Duties Peculiar to Banking Concerns:</u>								
77. Arrange Checks for Clearing House . . .								
78. Figure Service Charges on Checking Accounts								





SCHEDULE B (Continued)

DUTIES	Important	Unimportant	School	Job	School-Job	Minutes Per Day	Hours Per Week	Weeks Per Year
79. Post Service Charges on Ledger Cards . . . . .								
80. Arrange and Post Checks from Clearing House.								
81. Post Checks and Deposits . . . . .								
82. Prepare Statements of Checking Accounts. . .								
83. Figure Interest on Savings Accounts . .								
84. Prepare Club Cards for Following Day. . . . .								
85. Draw Club Cards for Posting. . . . .								
86. Balance Club Cash . . .								
87. Post Ledger Cards of Clubs. . . . .								
88. Write Daily Statement .								
X. <u>Additional Duties Not</u> <u>Listed Above:</u>								
89. _____								
90. _____								
91. _____								
92. _____								
93. _____								





SCHEDULE C

CHECK LIST OF DUTIES TO EMPLOYERS

DUTIES	Important	Unimportant	School	Job	School-Job
I. <u>Keep Books and Ledgers:</u>					
1. Make Journal Entries . . . . .					
2. Keep General Ledger. . . . .					
3. Keep Petty Cash Book . . . . .					
4. Balance Cash Daily . . . . .					
5. Keep Sales Ledger. . . . .					
6. Keep Purchases Ledger. . . . .					
7. Keep Accounts Payable Ledger . . . .					
8. Keep Accounts Receivable Ledger. . .					
9. Take Trial Balance . . . . .					
10. Prepare Profit and Loss Statement. .					
11. Prepare Balance Sheet. . . . .					
12. Keep Expense Accounts. . . . .					
13. Post Salesmen's Commissions... . .					
II. 14. <u>Filing</u> . . . . .					
III. <u>Stenographic Duties:</u>					
15. Take Dictation . . . . .					
16. Transcribe from Shorthand Notes. . .					
17. Type from Dictating Machine. . . . .					
18. Shave Dictaphone Records . . . . .					
19. Compose Letters for Employer . . . .					
IV. <u>Clerical Duties:</u>					
20. Check Bills and Invoices . . . . .					
21. Record Invoices. . . . .					
22. Operate Calculating Machine. . . . .					
23. Order Supplies for Office. . . . .					
24. Make Bank Deposit. . . . .					
25. Make Out Receipts. . . . .					
26. Figure Pay Rolls . . . . .					
27. Prepare Pay Roll Report. . . . .					
28. Assemble Orders and Attach Bills of Lading. . . . .					
29. Look Up Dates for Shipping Mer- chandise. . . . .					
30. Put Up Paper Samples . . . . .					
31. Receive and Record Cash of Delivery Truck Drivers . . . . .					





SCHEDULE C (Continued)

DUTIES	Important	Unimportant	School	Job	School-Job
32. Assemble Case Records. . . . .					
33. Make Out Social Security and Un- employment Reports. . . . .					
34. Pay Bills. . . . .					
35. Check Credits on Customers . . . . .					
36. Make Out Notes . . . . .					
37. Send Out Collection Letters. . . . .					
38. Record New Employees . . . . .					
39. Make Out Separation Notices (Employees Leaving Job) . . . . .					
40. Prepare Income Tax Returns . . . . .					
41. Cash Money Drawer and Clear Cash Register. . . . .					
42. Make List of Employees' Annual Wages, Send Copy to Government, and Give Each Employee a Copy of His Re- port. . . . .					
43. Order Merchandise. . . . .					
44. Assemble Slips Recording Merchandise Sent Out on Approval. . . . .					
45. Credit Checks Received for Settling Estates . . . . .					
46. Indexing . . . . .					
47. Look Up Records of Different Estates					
48. Answer Telephone . . . . .					
49. Clean Files. . . . .					
50. Operate Addressograph. . . . .					
51. Record Probate Records for Settling Estates . . . . .					
V. <u>Type from Copy:</u>					
52. Letters. . . . .					
53. Orders . . . . .					
54. Bills, Invoices. . . . .					
55. Checks . . . . .					
56. Case Histories . . . . .					
57. Articles, Manuscripts. . . . .					
58. Legal Documents. . . . .					
59. Minutes of Meetings. . . . .					
60. Cut Stencils . . . . .					
61. Receiving Report on Car of Paper . .					
62. Medical Records. . . . .					





SCHEDULE C (Continued)

DUTIES	Important	Unimportant	School	Job	School-Job
63. Registration Cards (Employment Office) . . . . .					
64. Court Order on Estate. . . . .					
VI. <u>Operate Duplicating Machines:</u>					
65. Mimeograph . . . . .					
66. Hectograph . . . . .					
VII. <u>Mailing Duties:</u>					
67. Get Mail at Post Office. . . . .					
68. Read, Sort, and Classify Mail. . . . .					
69. Address Envelopes, Packing Slips . . . . .					
70. Fold Letters and Insert in Envelopes . . . . .					
71. Take Mail to Post Office . . . . .					
VIII. <u>Meeting and Handling People:</u>					
72. Wait on Customers. . . . .					
73. Hear Complaints in Office and over Telephone . . . . .					
74. Make Engagements and Appointments. . . . .					
75. Keep Employer Reminded of Engagements . . . . .					
76. Consultation in Regard to Settling Estates . . . . .					
IX. <u>Duties Peculiar to Banking Concerns:</u>					
77. Arrange checks for Clearing House. . . . .					
78. Figure Service Charges on Checking Accounts. . . . .					
79. Post Service Charges on Ledger Cards . . . . .					
80. Arrange and Post Checks from Clearing House. . . . .					
81. Post Checks and Deposits . . . . .					
82. Prepare Statements of Checking Accounts. . . . .					
83. Figure Interest on Savings Accounts. . . . .					
84. Prepare Club Cards for Following Day . . . . .					
85. Draw Club Cards for Posting. . . . .					
86. Balance Club Cash. . . . .					
87. Post Ledger Cards of Clubs . . . . .					
88. Write Daily Statement. . . . .					
X. <u>Additional Duties not Listed Above:</u>					
89. _____					
90. _____					
91. _____					
92. _____					
93. _____					





SCHEDULE D

## PERSONALITY TRAITS

- ( ) 1. ACCURACY - Not in details alone, but in everything.
- ( ) 2. ADAPTABILITY - Ability to adjust to employer's attitudes.
- ( ) 3. ALERTNESS - To sense true import of situations; to anticipate needs.
- ( ) 4. AMBITION - Desire to learn; desirous of being entrusted with responsibilities.
- ( ) 5. CONCENTRATION - Ability to work efficiently in the midst of distractions.
- ( ) 6. COOPERATIVENESS - Ability to work with others.
- ( ) 7. COURTESY - Habitually courteous; especially in dealing with people outside the organization.
- ( ) 8. DISCRETION - Ability to deal satisfactorily with confidential matters.
- ( ) 9. EFFICIENCY - Not only in handling details, but in handling more difficult tasks without waste of time or energy.
- ( ) 10. ENTHUSIASM - For work and its outcomes.
- ( ) 11. EVEN TEMPER - Not easily angered. Not resentful.
- ( ) 12. FAITHFULNESS - Especially in carrying out instructions and in looking after employer's interests.
- ( ) 13. HUMOR - Not too serious; able to see funny side of life; not facetious.
- ( ) 14. INDEPENDENCE - Able to do own thinking; does not need supervision.
- ( ) 15. INITIATIVE - Does not have to be told what to do.
- ( ) 16. INTELLIGENCE - Keen; high native intelligence; orderly mind.
- ( ) 17. JUDGMENT - In handling people and situations. Deciding how and when to do things.





SCHEDULE D (Continued)

- ( ) 18. LOYALTY - Able to give high degree of loyalty to employer and business.
- ( ) 19. MEMORY - For details, names, faces, places, etc. Exceptionally retentive.
- ( ) 20. OBJECTIVITY - Ability to think and act impersonally regardless of individual opinions and reactions.
- ( ) 21. ORIGINALITY - Thinks of better ways of doing things. Progressive.
- ( ) 22. PERSEVERANCE - Determination; stick-to-it-iveness in the face of obstacles.
- ( ) 23. PERSONALITY - Appearance, health, manners, etc.
- ( ) 24. POISE - Self-control under stress. Not easily disturbed or thrown off balance by the unexpected.
- ( ) 25. QUICKNESS - In thought and actions.
- ( ) 26. RESOURCEFULNESS - Ability to meet emergencies; never at a loss to know what to do or say in difficult situations.
- ( ) 27. RESPONSIBLENESS - Willingness to assume responsibility. Willing to go ahead with work without constant authorization.
- ( ) 28. SYSTEMATIC - Naturally careful about details and a liking for orderly procedure in large and small matters.
- ( ) 29. TACT - In dealing with people under trying circumstances.
- ( ) 30. THOUGHTFULNESS - Especially of others; gracious toward others.
- ( ) 31. UNSELFISHNESS - Able to put employer's interests ahead of own; willingness to work overtime and at inconvenient hours if necessary.
- ( ) 32. VERSATILITY - Able to turn hand to almost any kind of work, as necessity may require.





SCHEDULE E

Please fill in the following blanks:

Name \_\_\_\_\_

Name of Concern \_\_\_\_\_

Address \_\_\_\_\_

Title of Position Now Held \_\_\_\_\_

Occupation of Concern \_\_\_\_\_

Please indicate by checking in the places provided at the left of the following items, the amount of general education you had received when appointed to your present position. Draw a circle around the final year completed in the highest grade institution you attended if you did not graduate.

1. (    ) Junior High School - 7-8-9
2. (    ) Senior High School - 10-11-12. Name of School \_\_\_\_\_
3. (    ) Post High School - Grade 13
4. (    ) Private Preparatory or Finishing School--Grades 9-10-11-12
5. (    ) Junior College - Grades 13-14
6. (    ) College - Grades 13-14-15-16
7. (    ) Post-College (University) - Grades 17-18

Please indicate by checking in the places provided at the left of the following items, the amount of school business training you had received when appointed to your present position. If you did not graduate please indicate by circling the proper grade number to show when you dropped out.

1. (    ) High School - Grades 9-10-11-12
2. (    ) Private Business School - After High School graduation.
3. (    ) Private Business School - After Grade 9 or 10 or 11.
4. (    ) Post High School - Grade 13.
5. (    ) Junior College - Grades 13-14.
6. (    ) College - Grades 13-14-15-16
7. (    ) Post-College (University) - Grades 17-18.
8. (    ) Evening School - Public
9. (    ) Evening School - Private Business School
10. (    ) Evening School - College or University





SCHEDULE F

THE HIGH SCHOOL  
BELLOWS FALLS, VT.  
Jessie A. Judd, Prin.

BRATTLEBORO HIGH SCHOOL  
Joseph A. Wiggin, Principal  
Brattleboro, Vermont

April 3, 1941

Dear Office Worker:

Inclosed is a list of duties performed by office workers which we obtained through the cooperation of office workers of various businesses and a list of personality traits which are considered essential for an employee to succeed on the job. We want to know what duties are performed by the greatest number of people doing office work and what traits they consider the most important for success on the job. You are one of a selected group who can give us intelligent help with this study according to the directions which you will find on the other side of this sheet.

You know how easy it is to put off doing a thing like this unless you do it at once, so try to do it in the first fifteen or twenty minutes you have free and return the check lists in the inclosed stamped and addressed envelope. We are depending on you for efficient help. Your cooperation will be greatly appreciated.

This study is being conducted under the joint sponsorship of the Bellows Falls High School and the Brattleboro High School in an attempt to make the course of study for commercial pupils in all schools as practical as possible. We think the best way to do this is to find out what office workers actually do on the job and then give training for these duties.

If you would be interested in seeing the final results of this study, we should be very glad to send you such material as we get out.

Very sincerely yours,

Teacher of Commercial Subjects  
Bellows Falls High School

Inclosures

(Over)





SCHEDULE G

## DIRECTIONS

Read the list of duties carefully. Put a check mark (✓) in the "Important" column for each duty you perform which you think is important and a check mark in the "Unimportant" column for each duty you perform which you think is unimportant. Add any duties which you perform but which are not listed. Now, considering only each of the duties you perform, place a check mark:

In the "School" column if you think the duty should be taught in school.

In the "Job" column if the duty should be taught on the job.

In the "School-Job" column if instruction in school and on the job is required.

In order that we may have an idea of the approximate time you spend on each duty, will you kindly give us the following information: The approximate number of minutes per day, hours per week, and weeks per year you spend on each of the duties you perform by placing a number in each of the respective columns on the duty sheet.

On another sheet you will find an alphabetic list of personality traits which are considered important for an employee to succeed on the job. We should like to have you rank the importance of these traits by placing a number one in the parentheses immediately preceding the trait you think most important, number two opposite the trait next in importance, and so on down through the thirty-two traits.

On the other side of the personality trait sheet, you will find a blank requesting information about your job and education. This will enable us to find out just how many high school graduates enter business offices without having to secure any further education, and will help us in guiding future office workers in their educational training.

Please follow these directions closely, put the check lists in the inclosed stamped and addressed envelope, and mail it. Your kind cooperation will more than be appreciated.





SCHEDULE H

THE HIGH SCHOOL  
BELLOWS FALLS, VT.  
Jessie A. Judd, Prin.

BRATTLEBORO HIGH SCHOOL  
Joseph A. Wiggin, Principal  
Brattleboro, Vermont

April 3, 1941

Dear Employer:

Inclosed is a list of duties performed by office workers which we secured through the cooperation of office workers of various businesses and a list of personality traits which are considered essential for an employee to succeed on the job. We want to know just what duties employers in small communities expect their employees to be able to perform and what traits employers consider the employees should possess to succeed in their work. You are one of a selected group who can give us intelligent help with this study, according to the directions which you will find on the other side of this sheet.

You know how easy it is to put off doing a thing like this unless you do it at once, so try to do it in the first fifteen or twenty minutes you have free and return the check lists in the inclosed stamped and addressed envelope. We are depending on you a great deal for efficient help. Your cooperation will be greatly appreciated.

This study is being conducted under the joint sponsorship of the Bellows Falls High School and the Brattleboro High School in an attempt to make the course of study for commercial pupils in all schools as practical as possible. We think the best way to do this is to find out what office workers actually do on the job and then give training for these duties.

If you would be interested in seeing the final results of the study, we should be very glad to send you such material as we get out.

Very sincerely yours,

Teacher of Commercial Subjects  
Bellows Falls High School

Inclosures

(Over)





SCHEDULE I

## DIRECTIONS

Read the list of duties carefully. Put a check mark (✓) in the "Important" column for each important duty you expect your office employee or employees to be able to perform for you and a check mark in the "Unimportant" column for each unimportant duty you think your employee or employees should be able to perform. You may add any duties at the end of the list which you think your employee or employees should be able to perform but which have been omitted.

Now, considering each of the duties you have already checked, place a check mark:

In the "School" column if you think the duty should be taught in school.

In the "Job" column if you think the duty should be taught on the job.

In the "School-Job" column if instruction in school and on the job is required.

On another sheet you will find an alphabetic list of personality traits which are considered important for an employee to possess in order to succeed on the job. We should like to have you rank the importance of these traits by placing a number one in the parentheses immediately preceding the trait you think most important, number two opposite the trait next in importance, and so on down through the thirty-two traits.

Please follow these directions closely, put the check lists in the inclosed stamped and addressed envelope, and mail it. Your kind cooperation will more than be appreciated.





BOSTON UNIVERSITY



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